

THE AAO

FORUM FOR OSTEOPATHIC THOUGHT

JOURNAL

 Official Publication of the American Academy of Osteopathy®

TRADITION SHAPES THE FUTURE

VOLUME 15 NUMBER 1 MARCH 2005



John C. Glover, DO, FAAO

2004 NORTHUP MEMORIAL LECTURE
Where Do We Go From Here?

Instructions to Authors

The American Academy of Osteopathy® (AAO) Journal is a peer-reviewed publication for disseminating information on the science and art of osteopathic manipulative medicine. It is directed toward osteopathic physicians, students, interns and residents and particularly toward those physicians with a special interest in osteopathic manipulative treatment.

The AAO Journal welcomes contributions in the following categories:

Original Contributions

Clinical or applied research, or basic science research related to clinical practice.

Case Reports

Unusual clinical presentations, newly recognized situations or rarely reported features.

Clinical Practice

Articles about practical applications for general practitioners or specialists.

Special Communications

Items related to the art of practice, such as poems, essays and stories.

Letters to the Editor

Comments on articles published in *The AAO Journal* or new information on clinical topics. Letters must be signed by the author(s). No letters will be published anonymously, or under pseudonyms or pen names.

Book Reviews

Reviews of publications related to osteopathic manipulative medicine and to manipulative medicine in general.

Note

Contributions are accepted from members of the AOA, faculty members in osteopathic medical colleges, osteopathic residents and interns and students of osteopathic colleges. Contributions by others are accepted on an individual basis.

Submission

Submit all papers to Anthony G. Chila, DO, FAAO, Editor-in-Chief, Ohio University, College of Osteopathic Medicine (OUCOM), Grosvenor Hall, Athens, OH 45701.

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Papers submitted to *The AAO Journal* may be submitted for review by the Editorial Board. Notification of acceptance or rejection usually is given within three months after re-

ceipt of the paper; publication follows as soon as possible thereafter, depending upon the backlog of papers. Some papers may be rejected because of duplication of subject matter or the need to establish priorities on the use of limited space.

Requirements for manuscript submission:

Manuscript

1. Type all text, references and tabular material using upper and lower case, double-spaced with one-inch margins. Number all pages consecutively.
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3. Check that all references, tables and figures are cited in the text and in numerical order.
4. Include a cover letter that gives the author's full name and address, telephone number, institution from which work initiated and academic title or position.
5. Manuscripts must be published with the correct name(s) of the author(s). No manuscripts will be published anonymously, or under pseudonyms or pen names.
6. For human or animal experimental investigations, include proof that the project was approved by an appropriate institutional review board, or when no such board is in place, that the manner in which informed consent was obtained from human subjects.
7. Describe the basic study design; define all statistical methods used; list measurement instruments, methods, and tools used for independent and dependent variables.
8. In the "Materials and Methods" section, identify all interventions that are used which do not comply with approved or standard usage.

Computer Disks

We encourage and welcome computer disks containing the material submitted in hard copy form. Though we prefer Macintosh 3-1/2" disks, MS-DOS formats using either 3-1/2" or 5-1/4" discs are equally acceptable.

Abstract

Provide a 150-word abstract that summarizes the main points of the paper and its conclusions.

Illustrations

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References

1. References are required for all material derived from the work of others. Cite all references in numerical order in the text. If there are references used as general source material, but from which no specific information was taken, list them in alphabetical order following the numbered journals.
2. For journals, include the names of all authors, complete title of the article, name of the journal, volume number, date and inclusive page numbers. For books, include the name(s) of the editor(s), name and location of publisher and year of publication. Give page numbers for exact quotations.

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A PEER-REVIEWED JOURNAL

The Mission of the American Academy of Osteopathy® is to teach, advocate, and research the science, art and philosophy of osteopathic medicine, emphasizing the integration of osteopathic principles, practices and manipulative treatment in patient care.

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2005 AAO Calendar of Courses

1 APRIL

9-10 *Dr. Fulford's Basic Percussion: A Systematic Approach to the Whole Body*
Midwestern University/CCOM; Chicago, IL

MAY

13-15 *Prolotherapy: Above the Diaphragm*
UNECOM; Biddeford, ME

JUNE

17-19 *Visceral Approach to Cardiopulmonary Dysfunction*
UNECOM; Biddeford, ME

JULY

29-31 *Muscle Energy: Three Visions*
Midwestern University/CCOM; Chicago, IL

AUGUST

19-22 *15th Annual OMT Update: Application of Osteopathic Concepts in Clinical Medicine plus Preparation for Certifying Boards*
The Contemporary at Walt Disney World®
Buena Vista, FL

SEPTEMBER

16-18 *Clinical Application of Principles of Ligamentous Articular Strain in Primary Care*
UMDNJ-SOM; Stratford, NJ

OCTOBER

22 *Rapid OMT: Increase Your Reimbursement in an Ambulatory Setting*
Orlando, FL

23-27 *AOA Unified Convention: AAO Program: Osteopathy in the Specialties: A Hands-on Approach*
Kenneth E. Lossing, DO, Program Chair
Orlando, FL

NOVEMBER

11-13 *Prolotherapy: Below the Diaphragm*
UNECOM; Biddeford, ME

DECEMBER

2-4 *Lymphatic Approach to the Viscera*
AZCOM; Glendale, AZ

Sutherland Cranial Teaching Foundation

COURSES

June 9-13, 2005

Osteopathy in the Cranial Field

Course Director: Hugh M. Ettlinger, DO, FAAO
NYCOM
Old Westbury, NY

40 Category 1-A CME Hours

Contact: Judy Staser @ Phone: 817/926-7705
or Fax: 817/924-9990

These programs anticipate being approved for AOA Category 1-A CME credit pending approval by the AOA CCME

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April 29-May 1, 2005; Philadelphia, PA
June 24-26, 2005; Chicago, IL

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15 Hours Category 1A-AOA approved
(February and April courses are co-sponsored by AAO)
(June course co-sponsorship by the AAO is pending)
15 Hours CDE (pending approval)

Course Leader:

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View from the Pyramids

Anthony G. Chila

Specialist or Generalist?

In little more than nine months, the practice pathway for certification in Neuromusculoskeletal Medicine and Osteopathic Manipulative Medicine (NMM/OMM) will close. (See *Message from the Executive Director; AAO Newsletter, January 2005, 15*). The detailed explanation provided by Stephen J. Noone, CAE, brings out important points which can provide perspective for the viewing of change.

Certification in disciplines of practice presently expects the prerequisite of residency training in virtually all medical certifying boards, and this trend has been in progression in the osteopathic profession since the mid-1990s.

Prior to 1972, there was no board certification status for osteopathic physicians engaged in what was then described as general practice. The movement toward establishment of such a board was initially met with the question: "How can a generalist become a specialist?" Just a few years later, interest began to develop for the establishment of a cadre of educational leaders in all disciplines of board certification within the osteopathic profession. The vehicle through which this was to be accomplished was the status of *Fellow of the American Academy of Osteopathy*. That momentum has led to the establishment of American Osteopathic Certifying Boards for *Special Proficiency in Osteopathic Manipulative Medicine* and, now, *Neuromusculoskeletal Medicine*. Over time, the acceptance and maturation of what is now known as the *American Osteopathic Board of Family Physicians* offers certification in family practice and osteopathic manipulative treatment.

The growth in numbers and expansion of programs in colleges of osteopathic medicine recognized the need for qualified teachers in *osteopathic principles and practice* (OPP), now generally known as *osteopathic manipulative medicine* (OMM). Osteopathic physicians who possessed credentials described above were regularly recruited for such teaching. Much of curricular teaching as it was applied to areas of specialty disciplines was presented from the practice experiences of board certified generalists. This was viewed as being necessary because of the relatively rare participation of board certified specialists in the teaching of OPP/OMM. In time, these faculty members became regarded as "*specialists*" in OPP/OMT/OMM. In time, also, most gradually accepted the erosion and loss of their previous identities as *general practitioners*.

In addition to increasing numbers of colleges, enlargement of student bodies in the colleges has strained the teaching strength of a what has long been recognized as a small pool of faculty. Now that residency training programs are becoming

the norm for board certification in any practice discipline within the osteopathic profession, it may be appropriate to ask: "How can a specialist become a generalist?"

It has been noted that in the years since July 1, 1999, residency training in NMM/OMM has shown significant growth. Sixteen institutions are currently sponsoring 21 programs. Two new programs were recommended for approval in January 2005 and other institutions are planning to submit applications for new programs to begin in 2006. Superficially, this appears to reflect strength in anticipating the need for future faculty for numerous present and future colleges of osteopathic medicine. Given that a total of 37 residents were enrolled in these programs, 2003-2004, is this really so? How many of the estimated 500-600 currently board certified osteopathic physicians are serving in college faculty positions? Will the expanding numbers of institutional NMM/OMM residency programs become the new pool for recruitment and retention of faculty for the general teaching effort of osteopathic medical education? What is the planning document for needs assessment, implementation of training, recruitment and retention of specialists who may well be faced with the need to serve as generalists in portraying the broad applicability of osteopathic philosophy, principles, theory, methods and practice?

What will be the nature of the sunrise following the sunset on December 31, 2005?

**Are you interested in becoming
BOARD CERTIFIED
in Neuromusculoskeletal Medicine and
OMM?**

PRACTICE TRACK CLOSES

December 31, 2005

**May 1, 2005 – Application Deadline
for the November 2005 Exam**

Contact:

Dee Kieffaber, certification coordinator
AOBNMM

3500 DePauw Blvd., Suite 1080

Indianapolis, IN 46268

Phone: (317) 879-1881

Fax: (317) 879-0563

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Contributors

John C. Glover. Where Do We Go From Here. The 2004 Thomas L. Northup Lecture addresses the improvement of the quality and uniqueness of osteopathic medical education. The components of a Core Competency Compliance Program arising from Osteopathic Graduate Medical Education (OGME) meetings are reviewed. The Compliance program began in July 2004 and the seven components of the program will be introduced and assessed over the next three years. Suggestions are offered which may contribute to more substantive meaning. (p. 11)

Andrew Lovy. Medical Coverage for the American Team at the World 24 hour championship race in Brno, Czech Republic. The author had the privilege of serving as the Doctor for the American Team in this World Games Event. This was his second appearance in this capacity, previously in Holland. It is clear from this communication that the addition of a physician with osteopathic medical skills was a welcome addition to the team's effort. The team successes reflect the value of good will ambassadors, competitive spirit and professionalism amply supported by the physician's skills. (p. 15)

Robert C. Clark. The Case of a Patient with Persistent Urinary Urgency. "Think osteopathically". How many times this admonition asserts itself in the presence of persistent or difficult clinical circumstances. The author presents a thorough evaluation of a common clinical problem. Persistence of symptoms following successful conventional treatment led to a reassessment (osteopathic) of nerve supply and adjacent tissue characteristics. Resolution followed a revised treatment plan for manipulative intervention. (p. 20)

Paul T. McTurk and Halina H. Harding. Expanded Spinal Flexion Test: A new palpatory tool for LBP Analysis or an old test revisited? The authors view their contribution as an incidentally discovered new test or a new application of an old test. In carefully stating their premise, they demonstrate the following: the determination of type dysfunction (Fryette classification); increased objectivity for evaluation of apex and vertex segments. The authors encourage more discussion and study of their proposal. (p. 24)

E. Ryann McClennen and Russell G. Gamber. Acute Intermittent Porphyria, Mimic of Guillain-Barre' Syndrome: A Case Report with the use of Osteopathic Manipulation for management of pain. The authors present a most interesting consideration of motor neuropathies through the mimic effect of these entities. Physicians generally recognize that standard modalities of treatment often provide little relief of pain in complicated situations. The authors meet this challenge through their demonstration of the value of osteopathic manipulative intervention and encouragement of patient involvement. (p. 29)

Regular Features

DIG ON. WHO's First Congress. The first congress of the World Osteopathic Health Organization took place at Paris, France on January 8, 2005. The location was the Palais du Luxembourg, seat of the French Senate. One hundred and sixty-seven participants from 16 different countries demonstrated their willingness to unite for the the purpose of achieving international recognition for the value of Osteopathy. It is appropriate that this column recognize the contribution of Bruno Ducoux, DO, MRO(F) (p. 8)

FROM THE ARCHIVES. From January 1, 1900 through the spring of that year, Arthur G. Hildreth, DO was actively involved in seeking legal recognition for the practice of Osteopathy in the State of Ohio. Based on his efforts in Missouri in 1895 and 1897, his account serves to remind today's practitioners of the early years of struggle. (p. 10)

BOOK REVIEW. The complexities of Billing and Coding for medical practice in today's environment are succinctly given explanation in *A Physician's Guide to Billing and Coding (Jorgensen and Jorgensen)*. The manner of presentation provides a useful service for implementation in individual practices. *A Second Voice (Miller)* is a centennial contribution recognizing the development of osteopathic medicine in Ohio. The story of this state is certainly mirrored in the early legislative battles of other states. In an age of professional affluence and recognition, occasional reminders of the early struggles are not remiss. (p. 34)

ELSEWHERE IN PRINT. Skin Resistance vs. Body Conductivity. Chang-Li Zhang discusses critical problems of electronic measurements on the acupuncture system. His effort seeks to offer a new understanding of the background of acupuncture as well as other branches of holistic medicine. (p. 35)

CME CREDIT. In response to reader requests, AAOJ will offer CME Credit to readers completing the enclosed quiz. At this time, 1 Hour II-B Credit will be offered, with request for upgrade as AAOJ qualifications are reviewed by the **American Osteopathic Association.** (p. 22)

Component Societies' CME Calendar

and other Osteopathic Affiliated Organizations

April 1-4, 2005

*Biodynamics Phase IV:
The Midline*
Topanga, CA
CME: 23 Category 1A (anticipated)
Contact: Stefan Hagopian, DO
207/778-9847

April 2-5, 2005

Biodynamics Phase II: The Fluid Body
Franconia, NH
CME: 23 Category 1A (anticipated)
Contact: Donald Hankinson, DO
207/778-9847

April 9-10, 2005

*Advanced NeuroFascial Release
Course: The Extremities*
Arizona Academy of Osteopathy
CME: 16 Category 1A (anticipated)
Contact: Stephen Davidson, DO
602/957-3525 (AZ)
800/359-7772 (USA)
website: www.healthabounds2.com

April 15-17, 2005

Neurofascial Release Conference West
Arizona Academy of Osteopathy
CME: 24 Category 1A (anticipated)
Contact: Stephen Davidson, DO
602/246-8977 (AZ)
800/359-7772 (USA)
website: www.healthabounds2.com

April 17-20, 2005

*Biodynamics Phase III:
The Long Tide and the Dura*
Franconia, NH
CME: 22.5 Category 1A (anticipated)
Contact: James Jealous, DO
207/778-9847

April 21-24, 2005

50th Annual Conference
Florida Academy of Osteopathy
Grosvenor Resort
Lake Buena Vista, FL
CME: 20 Category 1A (anticipated)
Contact: FAO
727/581-9069

May 8-11, 2005

*Biodynamics Phase VI:
The Embryological Health*
Franconia, NH
CME: 24.75 Category 1A (anticipated)
Contact: James Jealous, DO
207/778-9847

May 12-15, 2005

108th Annual Convention
Indiana Osteopathic Association
Indianapolis, IN
CME: 30+ Category 1A (anticipated)
Contact: IOA
800/942-0501 or
317/926-3009

May 15-18, 2005

*Biodynamics Phase VII:
The Health Alone*
CME: 22 Category 1A (anticipated)
Franconia, NH
Contact: James Jealous, DO
207/778-9847

May 20-22, 2005

*Crash Recovery, the Long Road Home:
Treating Victims of Motor Vehicle
Accidents and Brain Injuries*
The Cranial Academy
UMDNJ/SOM
Stratford, NJ
CME: 17 Category 1A (anticipated)
Contact: The Cranial Academy
317/594-0411

May 22-25, 2005

*Biodynamics Phase V: The
Embryological Face*
Franconia, NH
CME: 21.5 Category 1A (anticipated)
Contact: James Jealous, DO
207/778-9847

June 5-8, 2005

*Biodynamics Phase VI:
The Embryological Health*
Franconia, NH
CME: 24.75 Category 1A (anticipated)
Contact: James Jealous, DO
207/778-9847

June 9-13, 2005

*SCTF 40-hour Basic Course
Osteopathy in the Cranial Field*
NYCOM
Westbury, NY
Director: Hugh Ettlinger, DO, FAAO
Contact: Judy Staser
817/926-7705

June 18-22, 2005

June Basic Course
The Cranial Academy
Indian Lakes Resort
Bloomington, IL
CME: 40 Category 1A (anticipated)
Contact: The Cranial Academy
317/594-0411

June 23-25, 2005

3rd Annual Meeting
American Association of Colleges of
Osteopathic Medicine (AACOM)
Bethesda, MD
Further details will be published on the
Website as it becomes available: [http://
www.aacom.org.events/annualmtg](http://www.aacom.org.events/annualmtg)

continued on page 22

Dig On

Anthony G. Chila



World Osteopathic Health Organisation WOHO's First Congress Palais du Luxembourg, Paris January 8, 2005

Editor's Note: *The text in this document are excerpts from the narrative by Guy Roulier, DO (France). For a complete copy of his article as well as an interview with Bruno Ducoux, DO (France), please visit the website:*

*[www.osteopathie-france.net/
Osteo-pratique/congres_WOHO1.htm](http://www.osteopathie-france.net/Osteo-pratique/congres_WOHO1.htm)*



“The first congress of the World organisation, WOHO, took place in Paris on the January 8, 2005 in the prestigious Palais du Luxembourg, the seat of the French Senate. One hundred and sixty-seven participants took part in this historical meeting coming from 16 different countries: Europe Australia, United States and Canada. They are came individually to show their will to unite in the objective of creating a worldwide movement in favour of our marvellous branch of therapy. In his opening speech, our friend and organiser Bruno Ducoux, stressed the fact that this world congress of WOHO, the first ever, was taking place in a highly symbolic place, the seat of the French Senate, where a decisive law recognising the qualification of osteopaths in France was voted with near unanimity on the 4th of March 2002. The climax came with Viola Frymann's contribution. Her professionalism, kindness, serenity, charisma and open mind offer an example to be followed by all osteopaths. For me, the main impression of this day on top of the quality of the contributions was the true harmony and the feeling of belonging to the same family, of communication.”

Guy Roulier, DO (France)



Members of the bureau of WOHO : Left to right (front row): President Michael Mulholland-Licht, vice-presidents Jane Carreiro and Simon Fielding, and Renzo Molinari. Left to right (back row): Bruno Ducoux, Michael Patterson, Raimond Engel and Zachary Comeaux.



Practice Opportunities Available

Family Practice/Emergency Medicine in "Great Northwoods of New Hampshire: Replace an EM physician who has taken on some of the administrative duties at the Hospital. Join 3 other EM physicians. Full time is considered 85/24 hour shifts a year with the support of tenured, certified EM nurses. This busy ER sees about 10,000 visits a year with LifeFlight to Dartmouth-Hitchcock Medical Center. This is a "critical access" hospital. Excellent salary and benefits; easy access to Portland, ME; Burlington, VT; as well as Boston and Montreal. This community offers a quality educational system, affordable housing and a great place to raise a family.

Internal Medicine in South Central Pennsylvania: Join 2 other physicians in a very lucrative practice with an excellent referral base. Employed position with a 2-year track to partnership. Excellent compensation package with benefits. Shared call coverage. Associated with 150-bed community teaching hospital. South-Central metropolitan community of 381,000 is within 1 hour of Baltimore, Washington, and Harrisburg.

Orthopedic Surgeon Group in picturesque St. Albans, VT: Looking for a partner who is interested in general orthopedics (a plus would be someone interested in any sub-specialty). Attractive income with partnership track, incentive, and a full complement of benefits. Single office and single hospital responsibility with a state-of-the-art spacious office across the street from the hospital. Located on Lake Champlain, 30 minutes from Burlington and Smugglers Notch Ski Resort. One hour to Montreal and three hours to Boston.

General Surgery in New Hampshire: Replace a retiring general surgeon on the medical staff of this "Award Winning" new hospital. Be part of an outstanding, respected and established surgical team with 1:3 call coverage. The hospital will provide a 2-year employment contract for you as you build your practice and reputation. Your office will be staffed by an experienced group and is in the medical offices attached to the hospital. Located at the northern edge of the White Mountains and an easy drive to Boston, Montreal, and Manchester.

OBG in coastal Rhode Island: Join a premier group of two OB/GYNs and one nurse practitioner who are looking to expand. Call rotation is 1:5. Office is located on the next block to the hospital. Approximately 60% of the practice is GYN and 40% is OB with a good population mix. Malpractice is very low due to an indemnity insurance program provided to the group through Women and Infants. Located just 11 miles south of Providence; 60 miles from Boston and Cape Cod.

Orthopedic Surgery in Suburban Philadelphia (Bala Cynwyd, PA): Opportunity for a young orthopedic surgeon to join a SSG of 2 BC ORS. Chance to grow a practice with the strong support of a quality group and the backing of an experienced MSO. This medical practice also partners in a Management Services Organization, which is a "super center" with ambulatory back-up at Lankenau Hospital. Tremendous first-year compensation and benefits. This suburban community is located only 10 minutes from Center City, Philadelphia.

General Surgery in Philadelphia, PA: Excellent opportunity to be in on the ground floor and build a GS group, which will be supported by the hospital. Any sub-specialty training would be a plus. The hospital has 350 beds and is located in Northeast Philadelphia. The hospital has invested millions of dollars in surgical upgrades in the past year. Located about 1/2 hour to center city Philadelphia.

OBG in Central New Jersey: Outstanding opportunity to be employed with a well-respected and established group offering a 1:5 call. Practice also has 5 mid-wives. This state-of-the-art office is 2 miles from the hospital. Mammograms on site; Lab; Ultrasound; and Bone Density as well as a procedure room. Excellent compensation and benefits provided for you and your family. The hospital, Community Medical Center (Toms River) is a 596 bed facility and is part of The St. Barnabas Health Care System. Located just 1 hour from Philadelphia and 1 hour from New York City. Great place to raise a family.

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Lawlor and Associates

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Email: LawlorRctg@aol.com

The Lengthening Shadow of A. T. Still

Second Edition, Copyright 1942, Chapter XII

Ohio Recognizes Osteopathy

During the early part of 1900, it was decided that I should go to Ohio to secure recognition for our profession in that state. At that time there were between ten to fifteen osteopathic physicians practicing in Ohio. Among them were Dr. M. F. Huiett of Columbus, and Dr. H. H. Gravett of Piqua, who assisted me very ably in the legislative work. We made some very wonderful friends in both the House and the Senate. Former United States Senator Willis of Delaware, O., who at that time was a young member of the House, proved to be one of the most loyal supporters of osteopathy from the beginning of our acquaintance until his untimely death. He spoke before osteopathic gatherings at many places and made one of the graduation addresses at Kirksville. He also spoke at the American Osteopathic Association convention held in Kirksville in August, 1924, celebrating the fiftieth anniversary of the discovery of osteopathy. Nicholas Longworth, of Cincinnati, afterwards Speaker of the House of Representatives in Congress, was also a member of that Senate, as was the late President Warren G. Harding.

Using the same tactics as in the legislative campaigns in Missouri, in 1895 and 1897, I attempted to contact every member of the House and of the Senate and lay before them the fact that people who wished to have osteopathic treatment in Ohio could not do so unless there were at hand osteopathic physicians who had a legal right to practice. It was necessary for the citizens who wanted osteopathic physicians, as well as for the profession itself, to have a law that would enable these doctors to practice.

I was in Ohio from January 1 until late

in the spring. The session did not adjourn until the very last of May and everything seemed to be going our way. The bill passed the House. The opposition by the medical people, however, was so very strong that at the time the bill was brought up for action in the House a number of physicians from cities around Columbus were present and endeavored to defeat it. Many of these were family physicians and were seated by the sides of members on the floor of the House when the bill came up for final action. Notwithstanding this obvious influence, a number of the members voted for our bill, even though their family physicians, seated at their sides, opposed it.

About that time, or just as the excitement was at its height, and it looked as if the bill would become a law, the leader of the medical opposition wired Senator Foraker in Washington, DC, as follows:

"Eight thousand physicians in the State of Ohio will hold you responsible if the osteopathic bill, to be voted upon by the State Senate at ten o'clock Saturday morning, becomes a law."

Senator Foraker promptly wired that he was not aware that such legislation was pending in Ohio, and that if he had been, he would have used his best efforts to see that the measure became a law. Thus you see the type of friend osteopathy had in Senator Foraker. We had not troubled him with the fact that such a measure was introduced; he was a busy man, and we felt that we could win the battle upon the merits of the measure alone.

Our bill was passed in the House and it was sent over to the Senate, where the same earnest effort was put forth. We would have had enough friends to pass it there, had it not been interfered with. A

senator who professed to be our friend secured the floor when the bill was called up and offered an amendment. He claimed that he had discussed the matter with me and that both the allopathic physicians and I had agreed. That was absolutely untrue. I had never even heard of the amendment until after it had become a part of that bill. The amendment he offered was about as follows: A provision permitting an osteopathic physician, who is a graduate of a recognized college requiring a course of study of four years of five months in four separate years, to take an examination under the State Medical Board in anatomy, physiology, diagnosis and chemistry. The Senate passed the bill with the amendment.

In Ohio it was not necessary for the Governor to attach his signature for a measure to become law; therefore, no chance for a Governor's veto was possible. There were no colleges of osteopathy at that time giving a course of four years; neither was there a medical college devoting that much time to the study of medicine; thus, when the osteopathic physicians in the state fought the law the Supreme Court ruled it was unconstitutional because the law demanded qualifications of osteopathic physicians not required of the graduates of other schools of medicine. I might mention that previous to the presentation of this amendment the medically controlled members of the legislature offered a substitute bill. That bill provided that all osteopathic physicians who wished to practice in Ohio should take an examination under the medical board in anatomy, physiology, diagnosis, and chemistry. We were able to defeat that bill, but were tricked by an amendment to the original osteopathic bill.

Where Do We Go From Here?

John C. Glover

Attending an AOA Convention provides a wonderful opportunity to attend a wide variety of educational programs, professional meetings, and run into colleagues you have not seen in a number of years. Personally, I have always looked forward to hearing the Northup lecture. It was a chance to hear a personal perspective on osteopathy. Sometimes it was historical, sometimes philosophical, sometimes thought provoking, but always worth the time to listen. I had the pleasure of talking with Dr. George Northup, Thomas Northup's son. He always made it a point to come to this lecture. I am honored to have been chosen to present this year's Thomas L. Northup Lecture.

Late one night when I was working at my computer, I heard a Great Horned Owl calling nearby. I looked out the window and saw the owl's silhouette on a dead branch, high in a tree. The bird's call started me thinking about our profession. I do not know how many of you have are familiar with the Great Horned Owl. It is a powerful bird, capable of taking prey much larger than other birds of prey its size and possessing sight considerably greater than our own, which enables it to see through the darkness. Owls have also been a symbol of wisdom.

Andrew Taylor Still demonstrated wisdom about patient care far beyond others of his time. He was a powerful voice who spoke about healing at a time of relative darkness in the medical profession. During his life, he took on some very powerful prey and remained strong and focused, despite many challenges. Today, osteopathy has remained a separate form of medicine, despite many challenges. We remain separate, but do we remain true to the teachings of Dr. Still?

My desire to become an osteopathic physician was firmly rooted in Dr. Still's

teachings, but as soon as I matriculated, I realized my reasons for choosing osteopathic medicine represented a minority opinion within my class and in the osteopathic profession as a whole. It was in the Undergraduate American Academy of Osteopathy and the members of the Academy that I found people of like thought and motivation. My association with the Academy has both nurtured and challenged my perspective on health care.

Before entering osteopathic medical school, I taught at the college level for seven years. Education has always been important to me. I have even been accused of trying to teach at all the osteopathic medical schools. Although the Academy has been a major resource for fostering Dr. Still's approach to patient care, it is not the sole voice in the profession. Some potentially important changes in osteopathic medical education began this past July.

These ideas came from work done at the osteopathic graduate medical education (OGME) meetings. The people who attend the OGME meetings are constantly working to improve the quality and uniqueness of osteopathic medical education. A Core Competency Compliance Program has been developed that has the potential to refocus osteopathic medical education and incorporate Dr. Still's ideas more fully into the educational process. Let me remind you of the seven core competencies.

1. Osteopathic Philosophy and Osteopathic Manipulative Care
2. Medical Knowledge
3. Patient Care
4. Interpersonal and Communication Skills
5. Professionalism
6. Practice-based Learning Improvement
7. System-based Practice Competencies

The timeline to implement the competencies began this July with the first two and the beginning of their assessment will begin this January. Over the course of the next three years all seven will be introduced and assessment begun. I applaud the work of the OGME, but I think more detail is needed to give the proposals more meaning. I would like to make some suggestions toward this end.

Years 1 and 2

The major challenge of the first two years is that the colleges start with students who typically have limited palpatory skills and little or no clinical experience. We have to develop their palpatory skills as they learn a wide spectrum of osteopathic manipulative techniques and try to understand when to use them and how they integrate into patient care, but without a clinical reference to apply them. That job is difficult enough, given the too often limited resources and overextended OMM faculty, but we try to do it at the same time they are being challenged to learn the basic science foundation they also need. No undergraduate advisor would allow a student to take the standard first or second year medical school curriculum.

Curricula in the osteopathic medical school have undergone constant revision since the first school opened in 1892. The group who delivers a large part of the OPP/OMT education are the members of the Educational Council on Osteopathic Principles or ECOP. Members of ECOP come from each of the osteopathic medical schools. They have the difficult task of balancing budgets, contact hours, and staff. This takes place in an educational environment where the overall knowledge base is constantly growing and



where every department is asking for more time in the teaching schedule. The OMM faculty at each school typically has a greater teaching load than other clinical faculty and is also expected to be active in college committees, clinical practice, and scholarly activities including research.

The OMM curriculum is not standardized between the schools any more than the overall curriculum. Standardization applies to content, not process. Every department of OMM is unique and will present the material to fit departmental and college philosophy. The Educational Council on Osteopathic Principles (ECOP) has been working toward this end and with the support of the Board of Deans will be able to set a basic gold standard. A gold standard implies high quality, not “dumbed down” to the lowest common denominator. ECOP developed a core curriculum over several years that led to the production of the *Foundations for Osteopathic Medicine* textbook. Selection of the executive editor for the third edition is being discussed at this meeting and the selection is critical to the form it takes and its potential use by the schools.

Students need a firm grounding in the art and science of palpation. Without good palpatory skills, students will not be able to make accurate diagnoses. Without an accurate diagnosis, the manipulative techniques taught will not result in a favorable outcome. Poor outcomes produce low self confidence and question the usefulness of OMT. The end result is that OMT will rarely if ever be used in practice. The major factor that determines success in developing OMT skills is a quality learning environment. That environment includes the curriculum, the instructors, and the physical environment.

It is critical that the OMM faculty and table trainer skill standards are high. That standard should be the AOBOMM certification. Every physician who teaches OMM in our schools should be OMM certified. After the fall of 2005, the only people who will be eligible to be certified will be those who have done a neuromusculoskeletal medicine residency, plus one NMM year or an FP/NMM combined residency. The number who complete training in one of these three programs is currently less than ten a year. After 2005, the practice tract op-

tion will be closed. The closing of the practice tract was necessary to bring the standards for certification up to current standards. The problem is that there are many people who would like to be able to sit for the certification, but who are not able to take the extra 1-3 years of training to qualify. My hope is that individuals who have been certified in any other area of medicine would be eligible to become certified after completing an established set of CME criteria. Without greater access to certification, there will not be enough qualified faculty to teach in the colleges, let alone be active in practice.

Another and more important challenge is the faculty-to-student ratio. There are guidelines in the literature that suggest learning is hampered when the faculty: student ratio is less than 1:10. Most of our schools meet that standard, but how they meet it is questionable. Many schools use adjunct faculty from the community to supplement the OMM faculty. Some of those individuals are well qualified and NMM certified. Others have an interest in OMM, but are not certified and may not possess a high level of OMM skills. The administrations of the new osteopathic colleges are aware of this fact. In still other cases, a good ratio is met only by including predoctoral OMM Teaching Fellows, whose skills vary widely. The worst situation is when the ratio is met by using students in a class ahead to replace faculty. It may be better than nothing or cost effective, but it does not set an acceptable quality standard. Everyone who teaches in the OMM lab should be NMM certified or working toward certification.

The facility where instruction takes place is another factor that effects the outcome of osteopathic training. A laboratory must have enough space to operate in, closed circuit monitors that allow all students to see demonstrations, a quality text, and the most important part of the physical environment is an adjustable table. Very few of the schools meet these standards. Fixed tables are a major challenge to students who vary tremendously in height and weight. Even when a student is matched with a table of adequate height for a given procedure, different manipulative techniques require different table heights for the same individual. Most schools try to adapt by using steps

for the vertically challenged, but it does not solve the problem. Hydraulic or electric adjustable tables should be the standard in all of the schools and a requirement for accreditation. Few students who do not have access to an adjustable table develop good OMM skills and the confidence to use them that goes with that confidence. The difference in cost is far outweighed by the benefit to the students' learning.

The more students see a separation between OMM faculty and curriculum, the easier it is for them to separate them in practice. Separation all too often means elimination of OMM into clinical thinking and utilization. Clinical faculty outside the OMM department should be encouraged to participate in OMM labs, but not at a lowering of OMM skills. Conversely, OMM should also help in other clinical labs. One way to help this process would be to develop a physical diagnosis course that integrates the osteopathic structural exam into the basic physical exam. This integration ideally should also be incorporated into specialized clinical exams and tailored for different specialties. Basic science lectures can also incorporate OMM didactic material. Consideration of OMM integration as part of promotion and tenure encourages all faculty to work toward better integration of OMM into all aspects of osteopathic medical education.

Years 3 and 4

During the clerkship years a student's clinical knowledge base is expected to increase by review of material presented in the first two years and increasing experience in patient management. This does not happen with OMM for a variety of reasons. Most students do not know where or how to apply much of the OMM they learned and the clinicians they rotate with are typically at a loss to help fill this void. One method to help would be the development of OMM protocols that are specific for different patient populations and can be used by different specialties. Many OMM specialists reel at the thought of an OMM protocol because they feel one protocol cannot address the uniqueness of each patient. To an extent that is true, but a good protocol addresses the most important aspects of management and more importantly gives a student a place to start. With

experience a protocol can be adapted by the student to fit them and the patients in their care. Understanding the protocols will improve efficiency and provide experience to modify the protocols.

Again, the key is integration. When the OMM information is integrated into patient care it becomes part of the differential diagnosis and the role of OMM in each patient's management is better understood. OMM should be considered an option on equal ground with pharmacology, nutrition, surgery, exercise and behavioral management. Students need to understand OMM involves optimizing the function of all systems of the body, not just improving joint motion or relieving pain.

Every student should be required to demonstrate knowledge of how to integrate OMM into the management of every patient, provide treatment tailored to each patient and document it in the patient record. This is not being done currently for a variety of didactic, political, and practical reasons. One way to help with the problem is to have a full time OMM hospitalist on staff at each teaching hospital. Currently, a student may receive some OMM instruction an hour a month or a week, if they are lucky, because few hospitals have an OMM specialist on staff or even available for consultation. Each student should be required to give at least one OMT under supervision per week and document it in the chart. That would mean each student would have given about 100 treatments during their clerkship years. Experience translates into confidence and competence. That competence should be evaluated by the student's OMM faculty and be a requirement for graduation.

Postgraduate Years

Once the student has graduated and starts postgraduate training the work of integrating OMM into patient care should continue. Each patient population has its own unique set of problems and the OMM didactic information taught to residents and the treatment given should meet the needs of those patients. Collaboration between members of the AAO and each specialty college can produce specialty specific information. This information should be put to the test and refined with research. Residents should also be ex-

pected to provide OMT and mentor students. A requirement of 100 treatments documented per year by each resident will continue to build confidence and competence. The specialty specific didactic OMM information needs to be part of the written test and the practice requirements need to include demonstration of competence in OMT for residents to become certified.

Once a resident has completed training the OMM information should continue to be presented in continuing medical education programs. An AOA requirement of 20 OMM specific 1A credits per cycle is needed. This would include both didactic and hands on information. The AOA and specialty colleges working with each state licensing board should require demonstration of OMT skills and OMM integration in patient care. There needs to be a change in the requirements for eligibility to become certified in NMM so that any certified physician can become certified in OMM with additional training in OMM. Beyond quality of patient care is the need to be paid for OMT. The issue of payment is being addressed by the AAO and the AOA. These efforts need to be supported by individual osteopathic physicians and state societies as well and the AOA, so both effort and money can be focused on the problem.

As I bring my thoughts to a close, I am reminded of the Great Horned Owl's call, "Whooo, who, who". Who will offer their skills to teach, who will offer their time to help in whatever way is needed by the profession, and who will continue to fight for osteopathy by answering the call of Dr. Still to "Dig On"? Quality, distinctive osteopathic education is the key to the vitality and growth of our profession! Thank you again for the opportunity to share my thoughts.

Recommendations in Summary

Years 1 and 2

1. All OMM faculty NMM certified and a faculty to student ratio of 1:10 or better in OMM labs
2. Adjustable height tables in OMM labs
3. Develop and utilize Gold Standard OMM Curriculum
4. Integrate OMM into basic science and

all clinical lectures

5. Integrate structural exam into physical exam from the beginning
6. Promotion and tenure in part based on OMM integration for all faculty
7. Use non OMM faculty to help in OMM labs and vice versa, but they need to have a high level of OMM skill

Years 3 and 4

1. Standardized set of protocols tailored to specific patient populations that serve as a base line of OMM care and expand knowledge and improve efficiency.
2. Stress OMM integration with pharmacologic, surgical, nutritional, and behavioral treatment.
3. Stress the role of OMM in optimizing systems functions, not just for alleviation of motion restriction or pain.
4. Required OMM rotation that requires delivery of OMT by the students, but all rotations should encourage, allow and foster the integration of OPP and OMT into patient management.
5. Designated OMM faculty on staff in the hospitals who consult on hospital patients and work with students.
6. Requirement that students evaluate, treat, and document in the progress notes a minimum of 100 supervised treatments to graduate.
7. Require OMM competency/proficiency exam to graduate.

Postgraduate Years

1. Collaboration between AAO and each specialty college to develop standards.
2. Establish specialty specific didactic OMM information integrated into residency training.
3. Establish specialty specific OMT procedures and protocols.
4. Require that interns and residents evaluate, treat, and document in the progress notes a minimum of 100 supervised treatments per year.
5. Testing of OMM didactic information on all board certification exams.
6. Demonstration of specialty specific OMM skills as a component of all board certification exams.
7. Provide option for any physician board certified in any specialty, to be able to sit for NMM certification after additional CME training, including MDs. ➡

CME

1. Requirement of 20 OMM didactic and hands on CME credits per cycle for all physicians.
2. Incorporate OMM questions and demonstration of skills into recertification exams.
3. OMM CME should mirror real practice and focus on practice performance.
4. Requirement to demonstrate OMM skills for state licensure.
5. Allow any physician already certified to be eligible to certify in OMM with the addition of additional CME training.
6. AOA, working with the state societies, need to devote considerable time and energy toward reimbursement for OMT.
7. Encourage all osteopathic physicians to mentor students in OMM.

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Medical Coverage for the American Team at the World 24-hour Championship Race in Brno Czech Republic

Andrew Lovy

The task of appropriate coverage for the World games began when I was asked to once again be the Doctor for the American Team. I had participated in the event the previous year, when the team went to Holland, and they did quite well; and it appeared clear to the members that the addition of a physician with osteopathic medical skills was a welcome addition.

Upon notification, I corresponded with the team Co-Captain, Roy Pirrung, and gave him the most recent set of drug sanctions and a list of non approved drugs, with the proviso that if any of the runners were taking any of the medication on the list, they contact me, or their prescribing doctor to ensure that there would be no complications in the event of drug testing. I then contacted each runner to learn of any medical or structural issues they had prior to the race and if there was anything we could do to enhance their abilities prior to the race. I had an advantage in that I had worked before with all but two of the runners, Peter Ebret and Alex Swenson. Prior to the race itself, I did a structural evaluation of each runner and some soft tissue and stretching to establish a base line to compare against during the competition. The race began after the appropriate ceremonies introducing the athletes.



There are many events that are greater than the sum of its parts. The 24-hour world championships were a wonderful example of that. From the moments of its inception until the final gun went off the team faced many challenges. Kevin Setnes, a premier American runner himself and one of the main supporters and sponsors, sent an e-mail to the entire team and stressed that this was a team effort even though each individual runner runs his or her race. And it is that team effort that really counts. As the event unfolded his comments showed exceptional wisdom.

The women's team consisted of Stephanie Ebret, Pam Reed, and Sandy Powell, all seasoned individual champions in their own right. The men's team consisted of Scott Eppleman, John Geesler, Roy Pirrung, and Alex Swenson. Again, a premier group of individual runners all of whom had participated in the team event the previous year, except for Alex who was a new and welcome addition to the team. Peter Ehret, ran as an open division runner for the USA as well.

The course as well as the site had been changed several times due to many considerations, having been moved from Holland to Brno. Even there the course was changed from a 2.5 K to a .867 K with up and down grades, as well as 7 left and 3 right turns. Portions of the course were run on cobblestone surfaces making footing a possible issue.

Except for the extraordinary efforts of Tomas Rusak, who hosted the event, the event may not have taken place at all. He managed to mobilize the entire Czech Republic to make this a premier event (there even was a commemorative stamp put out, regarding the event).

After the gun went off and the racers went on their way, the American men's

team started in 9th place. Over the course of the event, the team moved its way up steadily and gradually to 4th and then held that position for the last 5 hours, a truly remarkable achievement considering what was happening to the individual runners themselves. The women's team also started strongly, moved from 7th to 5th to 4th, and in the last 4 hours, moved into 3rd place, which they tenaciously held on to finishing as a medalist team. It required not only exceptional individual performances but a team spirit and concept as well, the runners encouraging each other during the course to keep going, to not give up, etc.

The runners were noted by other teams and officials as one of the few teams who, for the last three hours, had all the runners out on the course and ran well. (See Roy's comments.)

Tomas assigned two Czech ladies to work with us and one Maria (?) stayed with the team for the entire 24 hours, getting us all the food and supplies needed to maintain the performance, as well as act as translator when the occasion called for that. The handlers themselves, in addition to handling their runner, handled every member of the team. It appeared to an outside observer that the effort was seamless, all runners getting full attention as they went by from whomever was available at the time. As the runners came by they were given everything they asked for, wanted or needed and may not have known they needed, unaware that, when they left the area there was a major scramble to be ready for the next lap.

From the medical perspective, all of the runners were seen and tuned up with muscle energy, myofascial release prior to the race and at intervals during the race chosen by either the handlers or the runner to enhance their performance. The runners felt that this was a part of their success, being stretched out and ensured that their medical issues were addressed as they occurred.

The story is less than half told if one does not mention the individual performances and their contribution to the team effort.

John Geesler began steadily but very soon into the race began to have serious gastrointestinal problems. He reported to me that he was making a pit stop literally at every loop, which obviously slowed down his time. However, while he was

running, he did maintain form and speed. We had several attempts to slow the problem down and ultimately I went to the official medical tent, manned by Dr. Lubos Hrazdira and his medical team, who provided us medical assistance and Imodium. Within 3-5 laps, the problem abated and he was able to run for a period of time without further problems. However, the gastrointestinal issues continued to plague him throughout the race and reached the point where it was difficult to maintain fluids and nourishment. Anything that worked only did so for a short time, and then became a problem again. Sparing most of the details and another bout of gastrointestinal distress, John finished the race with far fewer miles than his anticipated mileage. However, a lesser man would have found many good reasons, not excuses to slow down or to stop entirely. By not doing so, he insured a very high position for the team. OMM was applied to the appropriate spinal segments. Soft tissue massage and stretching helped, but with Jon's continued push, each adjustment would last only for a period of time and required further adjusting, taking time from his speed and a bit of loss of ability to maintain.

Roy Pirrung started smoothly, learning from his experiences from the previous year, and having periodic tune ups, ran steadily, moved his way up the course and the field, and within the last two hours had broken another national record.

Scott Eppleman ran a steady well modulated and paced race, being almost self contained, coming in periodically to the tent, asking for what he needed, and then moving on. He had a strong steady performance, and during his last three hours he closely approached the speed of his first three hours.

Alex Swenson ran a wonderful paced race. He seemed to be unflappable. Regardless of the situation or how he felt, he marched on with few complaints and a good sense of humor. He mentioned that one of his few complaints was that one of the handlers (the doctor) kept calling him Eric instead of Alex, but he even overcame that misidentification. He was in the top three American runners and if anyone would have faltered, his mileage alone would have insured a very high place in the standings.

On the women's side, Pam Reed ran a marvelously steady pace. She came in a few times, had a few muscular issues to deal with because of the track conditions, but maintained a championship race for the entire event. At no time did her muscles indicate a fatigue level and her running was very powerful at the end, as it was at the beginning.

Sandy Powell ran steadily and strongly, also sustained some gastrointestinal issues later in the race, but overcame that with a change in electrolytes, fluids, and Imodium. In the last 4 hours basically she did not let any female runner on the teams behind the Americans pass her. She stated later that she wanted the third place for the team and she would have maintain pace at all costs, even if she had to crawl. Competence without courage leads to decent performance. Courage without competence leads to a great individual effort. But when you have both, such as Sandy did, you exceed all expectations.

Stephanie Ebret, the new addition to the team, ran a steady paced race early. In the middle phases she had an additional gear and ran with the leaders for several hours. She then slowed down briefly, paced herself well, then ran the last 4 hours strong and hard, and on a very challenging course, set a PR by 10 miles. (I had mentioned, after viewing the course conditions and layout, that it was not a PR course, but one that would be very challenging. I did not fully take into account the strong will and desire that the runners had to excel beyond their individual capabilities.)

We also had Peter Ehret, running for the United States, but in the open division. He ran well enough to have broken his personal best up to 100 miles. He then sat down for a few minutes, rehydrated, gathered his thoughts, then got up. He collapsed a few yards later with what Dr. Roger Bannister coined "Runners Neurogenic Shock". His blood pressure dropped, (70/40), his pulse became thready and it looked as if his race was over. However, after rehydrating and settling his system down, blood pressure returned, pulse became regular and steady, and he continued onward. Rather than slow down, however, within a few laps he was again running well, and when the race had ended, he was in first place in the open division.

It was a very proud moment for America and American sports to have our women stand up on the podium as medalists. They ran with extreme competency, fierce determination and grace. The rules were explained to all runners and teams prior to the race starting; and there were some very innovative interpretations that some of the teams applied, but our runners stuck strictly to the letter and intent of those rules. At all times they showed courtesy to other runners as well as handlers. We were very politely applauded at the start, but much more wildly at the finish, as the runners proved themselves worthy competitors and a team to be reckoned with. From the medical perspective, the shifting electrolyte, food and water needs were a constant challenge; and the needs shifted during the event. Then the addition of the gastrointestinal complications kept us constantly trying to work out new and different ways to keep energy levels and hydration up, in the face of reluctant gastrointestinal tracts. Attention to Chapman's reflexes, massage, soft tissue manipulation, myofascial release, cross fiberings, muscle energy techniques all blended together as the runners came in for the few minutes while they were making equipment changes. The runners stated they felt it was very useful in maintaining their pace throughout the race.

As an additional honor, when the women's team went up to receive their medal, I was asked to join them as a major support. I have several hundred medals, medallions and trophies for participation in runs throughout the years for my running persistence, but this is the first time I have received a medal for medical coverage. I felt this to be a great honor to be on that podium with America's finest. It was a very proud moment when Tomas mentioned my participation, being available for all the runners, being a psychiatrist, sports medicine specialist and Osteopathic Doctor. The international reputation of Osteopathic Physicians as being at the forefront of those called on for athletic events is moving forward at a rapid pace.

The Olympiad of this year was a reflection of the finest each nation was to field for the various events. There was a good deal of well deserved publicity for the athleticism shown. This event was the

Olympics for the ultra distance athlete; and for our teams to do that well, it only attests to the great potential that we have if given the support. All our runners work full time and do their training after hours and when and as they can. Individuals like Kevin Setnes, Roy Pirrung, and a myriad of other giants are making it possible to reach this level and additional support would be more than welcome. I envision some day when some of our teams and athletes will be hearing our national anthem played as they are on the podium.

One cannot close without mentioning the support system. Within the first few hours it became obvious that we had a team of handlers, as well as a team out on the track. Most of us put on 14 -20 miles chasing down food, chasing down runners, chasing down medications to assist our runners. We all stayed up the entire 24 hours as support. The young lady from the Czech Republic is especially to be commended. Rather than leave at 6:00 PM for a night on the town, she stayed with the team for the full 24 hours as well and was adopted by the entire team.

Dr. Hrazdira was more than gracious during the entire event. He is one of very few doctors who had his medical team and himself there at the event for the full 24 hours, giving expert aid and assistance to the runners, never leaving his post, and allowing me the courtesy of using his facility to work on our runners.

After the awards ceremony, the top three runners in each category were asked to go to the medical tent for drug testing. It was an appropriate, but also quite challenging, situation. After viewing the procedure, I was very sure that the testing itself was fair and very thorough in their handling the situation to ensure that no runner has an unfair advantage by using illegal drugs.

This event should be publicized nationwide. The performance of our athletes representing our country is worthy of international recognition and fame. They have that internationally and hopefully that will also occur in the USA. They are marvelous examples of good will ambassadors, superior athletes and good role models for our youth on professionalism and competitiveness. The role of the physician as part of the support team has proven itself time and time again.

Dear Doctor Lovy,

Once again, I offer my sincere thanks for your professionalism during our 24-hour World Cup event held in Brno, Czech Republic on October 23rd and 24th, 2004.

I was pleased when you responded affirmatively to my request to accompany the team for the second consecutive year. Many of the athletes were returning as well and the first question I heard from them was if you would be making the trip again.

Last year, we placed sixth in the men's competition and fourth in the women's division. Our goal was to move up at least one place for each team.

Without your assistance prior to, and during the race, we would not have been able to accomplish that goal.

The men moved up two places to take fourth and the women, with your proven osteopathic methods, were able to move to the medal stand!

I was also very pleased that the race director recognized you during the awards ceremony as assisting the team and enabling them to keep running while others were sidelined.

In fact, I have received a number of e-mails from other team coaches mentioning the fact that ALL U.S. runners were still running over the final hours of the event. I know it was because of your talents and skills that we were able to do that.

We have worked together on many other of my American record performances so it came as no surprise to me that with you there I broke my own 24-hour 55-59 age group national record on a course that was unusually tough for an international event with the World Cup designation.

On behalf of the American 24-hour team, I thank you for your service and making this race a rewarding experience. We look forward to you being a part of our team in Worschach, Austria on July 23-24, 2004.

See you in a few miles ...

roy plrRUNg
World Champion, U.S. Champion
American Record Holder
U.S. 24-hour Team Captain Manager

Accepted for Publication:
January 2005

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Kirksville, MO 63501

22nd International Symposium on Traditional Osteopathy in Montréal

June 17, 18, 19, 20 and 21, 2005

Tribute to the Philosophy of Man and the Vision of
Osteopathic Medicine of Andrew Taylor Still D.O.

"I Love my Fellow Man, Because I see God in his Face and in his Form"

WORKSHOP A

The arterial Functional Unit Within the Osteopathic
'Mechanical Link'
Guest Speaker: Paul Chauffour D.O. (FR)

PROGRAM : Presentation on the importance of the vascular tree as a priority for the health of the body, on lesions of the arteries and their contribution to the global lesion. Paul Chauffour will review the diagnostic elements as well as the precautions indicated in the evaluation and treatment of the functional osteopathic lesion of the arteries. He will give a detailed analysis of the "vascular heart", of the coronary, pulmonary, abdominal, upper and lower extremity, neck and intracranial arteries, of energetic stimulation and its influence on disease. The INHIBITORY EQUILIBRIUM. A practical course, very useful for patients.

WORKSHOP B

Energetically Integrated Osteopathic
Medicine in the Tradition of Robert Fulford D.O.
Guest Speaker: Zachary Comeaux D.O. (USA)

PROGRAM : Robert Fulford, student of Sutherland's, defined the biodynamic field theory. Zachary Comeaux will present a program based on learning the fine palpation of these subtle influences and will teach how to diagnose dysfunctions at this level, and how to treat them.

WORKSHOP C

Osteopathic Internal Milieu Approach and the
World of Emotions
Guest Speaker: Bernard Darraillans D.O. (FR)

PROGRAM : Bernard Darraillans has prepared a workshop to better understand and assess the impact of emotions on the physiology and behaviors of the patients. Emotions may create imbalances between the patient's internal and external milieu. To better allow us to understand the treatment of children and adults, Bernard Darraillans will emphasize on the treatment of adolescents and will bring several solutions to help patients through this phase of their life.

WORKSHOP D

Integrated Osteopathic Approach
Guest Speaker: Christian Fossum D.O. (UK)

PROGRAM : This course is based on the Osteopathic principles of reciprocity between structure and function and the role of fluids while exploring Tradition and new contemporary developments in anatomy and physiology.

WORKSHOP E

Endocranial Dynamics, Encephalon Treatment
and Its Impact on the Mechanisms of the
Organism: Endocranial Spasms part I
Guest Speaker: Philippe Druelle D.O. (CN)

PROGRAM : Description of normality and of different problems : traumatic, emotional, transgenerational and civilization endocranial spasms, and their impact on physiology and mechanisms. Review of the mode of action of the Breath of Life, Potency, and the biodynamic force. How to work with these realities in order to stimulate greater autoregulation. Palpatory learning of the evaluation and treatment of the brain, the liquid aspect and the fields. Protocoles 1 and 2.

WORKSHOP F

Advanced Clinical Practical Workshop
Guest Speaker: Viola Frymann D.O. F.A.A.O. (USA)
assisted by Brett Thomas D.O. (USA)

PROGRAM : Over four days, participants will have three activities: conferences, supervised practical sessions and treatments of patients, in small groups under her supervision.

WORKSHOP G

Progressive and Integrative Approach to
Osteo-Articular Work
Guest Speaker: Clive Standen D.O. (NZ)

PROGRAM : The main objective of this workshop is to allow the participants to develop the facility and savoir-faire required to assess and treat the fasciae and accomplish osteoarticular adjustments while adapting to each patient.

WORKSHOP H

Palpation and Treatment of the Fasciae,
Initiation to the Osteopathic Approach
Guest Speakers: Diane Laflamme D.O. (CN)
and Dino Muzzi D.O. (CN)

PROGRAM: This workshop is open to all health professionals. Excellent introduction to fasciae. This workshop will be taught by two excellent teachers from the Collège d'Études Ostéopathiques. It is very useful in developing palpation skills and learning the different concepts and properties of fasciae

Course time tables:

Workshops A to G : June 18th to 21st, 2005
Workshop H: June 18th and 19th, 2005

22nd International Symposium on Traditional Osteopathy in Montréal

Conference day: June 17th, 2005

	Featured lecturers:
8-9am	Welcome, registration and handouts
9-10am	The Philosophy of Research, by Michael Patterson Ph.D (USA)
10-10h30	The effectiveness of Osteopathy on outcomes in pediatric dysfunctional elimination syndromes, by Diane Nemmet D.O. (M.P.) (CN)
10h45-11h45	Special Presentation by Viola M. Frymann D.O., F.A.A.O (USA)
11h45-12h30	Treatment of patients presenting long standing conditions, by Philippe Druelle D.O. (CN)
2pm-3pm	Energetically integrated osteopathic medicine : the Life, Thought and Work of Robert Fulford D.O., F.A.A.O., by Zachary Comeaux D.O., F.A.A.O. (USA)
3pm-3h30pm	Emmanuel Swedenborg and our understanding of Osteopathic Philosophy, by Reuben Bell D.O., F.A.A.O. (USA)
4pm-5pm	Principles of structural organization and function of the PRM, by Yuri Moskalenko PhD. (Russia)
5pm-5:45pm	The importance of the arterial functional unit within the osteopathic mechanical link. by Paul Chauffour D.O. (France)
5:45-6:45pm	The arterial regulation and the work of emotions, by Bernard Darraillans D.O. (France)

Location

The 22nd International Symposium will be held in Montréal at the following location:
7400 Center, 7400 St-Laurence Boulevard,
Montréal, Qc, Canada,
H2R 2Y1

Accommodations on location

7400 Center, to reserve call :
Tel : 514-342-2816
Toll free :1-800-263-2816

Contact us for more information

College d'Études Ostéopathiques
7255 Alexandra, suite 202
Montréal, Qc, Canada, H2R H29
Tel: 514-342-2816
Toll free: 1-800-263-2816
Fax: 514-731-7214
Email: ceo@bellnet.ca

Registration form -----cut here

Full name _____
Street Adresse _____
City _____ State _____
Zip _____ Zip Code _____
Office phone: _____ Home phone _____
Fax _____ Email _____ @ _____

Degree or level of studies obtained: D.O. _____ Osteopathic Student _____ Prof. Health Practitioner _____

Please indicate your choice of workshop:

A B C D E G Conference day

Registration fees

Complete 5 day Symposium (including Conference Day)	970\$ (CN)	780\$ (US)
4 day Symposium (choice of one workshop)	900\$ (CN)	725\$ (US)
Conference day only	165\$ (CN)	130\$ (US)

Visa No _____ Expiration date: ____/____/____

MasterCard No. _____ Expiration date: ____/____/____

Or send your check dated May 17th, 2005 payable to the C.E.O. to the following address:

Collège d'Études Ostéopathiques of Montréal
7255 Alexandra St., suite 202
Montréal, Qc, H1Z 2P1

Register on line at www.ceo.qc.com

Please contact us for details on our cancellation policy

The Case of a Patient with Persistent Urinary Urgency

Robert C. Clark

Chief Complaint:

Urinary Urgency

History of Chief Complaint:

Patient presents to office with a chief complaint of Urinary Urgency that has been present frequently for the past 5 weeks. She initially observed the urgency accompanied by frequency and burning on urination, an unpleasant odor and blood in her urine. She self-medicated with amoxicillin 500 milligrams TID) for two days. Her physician prescribed Augmentin 1000 milligrams 2 tablets daily in a single daily dose for 10 days. Urinary symptoms of burning and frequency resolved over the course of treatment. The urgency diminished. At the end of treatment the patient's frequency had returned to normal. The burning, odor, and blood were absent. The urgency was persistent yet less severe. Approximately one week into the course of the treatment, the patient presented with vaginal discharge characteristic of candidiasis. The patient received a single dose treatment of fluconazole and had complete resolution of the symptoms of the yeast infection.

Review of Systems:

Head, Ear, Nose, and Throat:

Patient has recurrent neck pain and headache from an automobile accident approximately five years previous. She is presently under treatment with an osteopathic physician for this and doing well.

Respiratory:

Patient has a history of asthma and is on a regimen of prophylactic medications of Serevent and Flovent.

Cardiovascular:

Patient has a four-year history hypertension controlled with nifedipine 20 milligrams once daily.

Gastrointestinal:

Patient reports no symptoms.

Genitourinary:

In addition to the chief complaint the patient has had one pregnancy delivered by emergency C-section 20 years prior.

Musculoskeletal:

Thoracolumbar pain, lumbosacral pain, sacroiliac pain, neck pain, and headache all of which the patient attributes to the sequelae of the aforementioned automobile accident and several prior injuries. The patient receives monthly OMT and this controls the symptoms quite well.

Neurologic:

Patient has prism correction for diplopia secondary to the automobile accident.

Physical Examination:

Patient is a 52-year-old Caucasian female in no apparent distress. Patient is moderately overweight. Blood pressure is normotensive. Heart rate approximately 72 beats per minute. Respiration roughly 14 breaths per minute. The patient shows moderate somatic dysfunction in the thoracolumbar area and in the 11th and 12th ribs – showing an inhalation pattern of the ribs more so on the right side. Pubic bones are level. Sacrum level. The ilia show no rotation and are level.

Laboratory Examination:

Urine is clear. No blood cells or bacteria are present.

Impression:

Recurrent urinary tract urgency secondary to a viscerosomatic reflex and facilitated segment involving the thoracolumbar junctional area. Additionally the previously diagnosed urinary tract infection and vaginitis are fully resolved.

Treatment:

Patient was treated in the thoracolumbar area and good mobilization occurred using a combination of muscle energy techniques and ligamentous articular release techniques. Patient reported improvement.

First Follow-up:

Five days later on follow-up the patient reported some improvement had occurred; however, the urgency was significant enough that it caused her inconvenience as well as discomfort.

Reexamination:

The thoracolumbar area was substantially better than on previous visit - it again was treated. Sacrum and pelvis were in normal alignment. The patient's pelvic diaphragm showed marked asymmetry - extremely tender to palpation on both sides. Right side appears inferior to left side. Indirect myofascial treatment of the pelvic diaphragm resulted in significant improvement in the patient's symptoms at that time, however in view of the patient's long-standing symptoms, she felt this level of improvement was inadequate and inquired as to what additional

treatment could be given. Evaluation of the suprapubic area for visceral strain involving bladder and uterus was performed and no dysfunctions were detected. Evaluation of the urethral area revealed a significant myofascial strain of the periurethral soft tissues with a significant pull to the patient's right side and superiorly. This was treated utilizing a myofascial release technique indirect method with an immediate and significant relief such as the patient noted her symptoms were now almost imperceptible.

Second Follow-up:

Three days later the patient reported that symptoms had improved no less than 95% and examination of the pelvic diaphragm and thoracolumbar area revealed normal structures. The patient felt additional treatment to the urethra was necessary. Myofascial strain pattern of the periurethral tissues was found and treated again with indirect myofascial release technique.

Discussion:

This case presents a diagnostic challenge. Why did urgency persist despite complete resolution of all other symptoms? Thinking osteopathically mandates consideration of nerve supply, blood supply, venous, and lymphatic drainage. A viscerosomatic reflex can set up a facilitated segment that can cause persistent physical symptoms via a somatovisceral reflex.

As the autonomic innervation to the urinary systems is from the thoracolumbar area and the sacral area, the first thought was to examine these two areas. The thoracolumbar area and 11th and 12th ribs were dysfunctional in this patient. Empirical proof of the reflexes was seen with the success of the treatment.

However, the persistence of the symptoms suggested an additional etiology was operating. After the circulation and nervous system were treated, osteopathic thinking suggests evaluating the adjacent structures. In this case the, pelvic diaphragm, the bladder, urethra, and the periurethral tissues are the adjacent structures. In this case, the pelvic diaphragm and periurethral tissue proved to be the final pieces of the diagnostic puzzle and treatment resolved the problem.

The patient wondered what her fate would have been had she not had a DO as her doctor? More importantly, she had a DO who thought osteopathically and looked to the host when there was no disease to attribute her illness.

Would she have gotten better in time? Five weeks of symptoms suggests not. Her next step was urologic consultation. Would she eventually be diagnosed as interstitial cystitis? Did we prevent that outcome with OMT? We will never know what we prevent!

Accepted for Publication:
September 2004

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Vallejo, CA 94592

CME QUIZ

The purpose of the quiz found on the next page is to provide a convenient means of self-assessment for your reading of the scientific content in the case study, *The Case of a Patient with Persistent Urinary Urgency* by Robert C. Clark, DO, MS.

For each of the questions, place a check mark in the space provided next to your answer so that you can easily verify your answers against the correct answers that will be published in the June 2005 issue of the *AAOJ*.

To apply for Category 2-B CME credit, transfer your answers to the AAOJ CME Quiz Application Form answer sheet on the next page, then mail the bottom half of the form with your AOA number ONLY to the AAO as indicated. The top half of the form should be sent to the American Osteopathic Association in Chicago. The AAO will record the fact that you submitted the form for Category 2-B CME credit and will forward your test results to the AOA Division of CME for documentation.

continued from page 7

June 23-26, 2005

Annual Conference:
The Osteopathic Mind
The Cranial Academy
Indian Lakes Resort
Bloomington, IL
Contact: The Cranial Academy
317/594-0411

September 2-5, 2005

Biodynamics Phase III:
The Long Tide and the Dura
Topanga, CA
CME: 22.5 Category 1A (anticipated)
Contact: Stefan Hagopian, DO
207/778-9847

September 3-6, 2005

Biodynamics Phase II
Kona, HI
CME: 23 Category 1A (anticipated)
Contact: Thomas Shaver, DO
207/778-9847

September 11-14, 2005

Biodynamics Phase II: The Fluid Body
Franconia, NH
CME: 23 Category 1A (anticipated)
Contact: James Jealous, DO
207/778-9847

October 6-9, 2005

SCTF Continuing Studies Course
Title and details TBA
Contact: Judy Staser
817/926-7705

October 8-9, 2005

Advanced NeuroFascial Release Course West
Arizona Academy of Osteopathy
CME: 16 Category 1A (anticipated)
Contact: Stephen Davidson, DO
602/246-8977 (AZ)
800/359-7772 (USA)
website: www.healthabounds2.com

October 14-16, 2005

Neurofascial Release Conference West
Arizona Academy of Osteopathy
CME: 24 Category 1A (anticipated)
Contact: Stephen Davidson, DO
602/246-8977 (AZ)
800/359-7772 (USA)
website: www.healthabounds2.com

This CME Certification of Home Study Form is intended to document individual review of articles in the *Journal of the American Academy of Osteopathy* under the criteria described for Category 2-B CME credit. This form should NOT be submitted in the same envelope with a AAOJ CME Quiz Application Form (see below).

CME CERTIFICATION OF HOME STUDY FORM

This is to certify that I, _____,
 please print full name
 READ the following article for AOA CME credits.

Name of Article: *The Case of a Patient with Persistent Urinary Urgency*

Authors: Robert C. Clark, DO, MS.

Publication: *Journal of the American Academy of Osteopathy*, Volume 15, No. 1, March 2005, pp 20-22

Category 2-B credit may be granted for this article.

00 _____
 AOA No. _____ College, Year of Graduation _____

Signature _____

Street Address _____

City, State, Zip _____

FOR OFFICE USE ONLY

Category: 2-B Credits _____

Date: _____

AOA No. 00 _____

Physician's Name _____

Complete the quiz below and mail to the AAO. The AAO will forward your completed test results to the AAO. You must have a 70% accuracy in order to receive CME credits.

Mail TOP HALF of this page to:
 American Osteopathic Association
 Attn: Division of CME
 142 E Ontario St., Chicago, IL 60611-2864
KEEP A DUPLICATE OF YOUR COMPLETED FORM FOR YOUR RECORDS



CME QUIZ APPLICATION FORM

Fill in your AOA member number below. Do not place your name on this AAOJ CME Quiz Application Form. Credit is granted by member number only to preserve member anonymity. Complete the answer sheet to the right for Category 2-B CME credit.

Mail ONLY BOTTOM half of this page with your AOA number and quiz answers to:
 American Academy of Osteopathy®
 3500 DePauw Blvd, Suite 1080
 Indianapolis, IN 46268

AOA No. 00 _____
 (see membership card)

1. For patients with persistent urinary urgency after the infection is resolved, the osteopathic physician should consider:

- ___ A. nerve supply.
- ___ B. blood supply.
- ___ C. venous and lymphatic drainage.
- ___ D. all of the above.

2. The continued presence of symptoms after effective treatment of facilitated segments and supporting circulation, suggest the osteopathic physician should:

- ___ A. refer the patient for appropriate specialty care.
- ___ B. evaluate the adjacent anatomical structures.
- ___ C. repeat the antibiotic treatment.
- ___ D. perform a follow-up culture and sensitivity of the urine.

3. In the patient with persistent urinary urgency after effective treatment of the infection, what was the initial proposed explanation of the urgency?

- ___ A. Incomplete antibiotic regimen
- ___ B. Uncontrolled hypertension
- ___ C. Sequellae of injury
- ___ D. Facilitated Segment of the thoraco-lumbar area

4. Sympathetic autonomic innervation to the urinary system is from the:

- ___ A. mid thoracic area.
- ___ B. thoraco-lumbar area.
- ___ C. lumbo-sacral area.
- ___ D. sacral plexus.

5. What structures are adjacent to the bladder?

- ___ A. Urethra
- ___ B. Pelvic diaphragm
- ___ C. Periurethral soft tissues
- ___ D. All of the above

Answer sheet to March 2005 AAOJ CME quiz will appear in the June 2005 issue.

December 2004 AAOJ CME quiz answers:
 1. C
 2. D
 3. B
 4. D
 5. B



Osteopathic Manipulative Medicine Faculty Position Opening

**Touro University-California
College of Osteopathic Medicine**

The Department of Osteopathic Manipulative Medicine (OMM) has a full time position available. The applicant should have interest and experience in clinical practice and teaching osteopathic manipulative medicine in a variety of settings.

Qualifications:

- ¥ Board certified in OMM/NMM or eligible to sit for certification
- ¥ Clinical practice experience
- ¥ Licensed or ability to be licensed in the State of California
- ¥ Unrestricted DEA licensure
- ¥ Graduate of an AOA-approved osteopathic college
- ¥ Residency training and teaching experience desirable

Responsibilities:

- ¥ Participate in the delivery of the Department of Osteopathic Manipulative Medicine (OMM) educational programs
- ¥ Work/teach with other university departments to integrate OMM throughout the curriculum
- ¥ Participate in other departmental programs, including pre and post doctoral training, research, and other scholarly activities
- ¥ Patient care in the Touro University Health Care Center

Rank, Salary, and Benefits:

- ¥ Assistant or Associate Professor
- ¥ Salary based on experience and credentials
- ¥ Touro University faculty benefit package

Letters of interest and current curriculum vitae are being accepted at this time and will continue until a suitable candidate is hired. The position will begin July 1, 2005. Information and inquiries should be sent to:

John C. Glover, DO, FAAO
Chairman, Department of Osteopathic Manipulative Medicine
Touro University-California
1310 Johnson Lane
Vallejo, CA 94592
(707) 638-5219, Fax (707) 638-5255, e-mail: jglover@touro.edu

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Expanded Spinal Flexion Test: A New Palpatory Tool for LBP Analysis or an Old Test Revisited?

Paul T. McTurk and Halina H. Harding

Abstract

Expanded spinal flexion test (ESFT), in its simplest definition, involves the application of the classical sacral test for sacral unleveling test¹ (or simply sacral flexion test - SFT) to the lumbar and lower thoracic vertebrae. This incidentally discovered new test or a new application of an old test, does not appear to be documented or used elsewhere in the literature. According to the spinal motion laws documented first by Fryette² in the osteopathic literature, Law #3 states that a motion or dysfunction in any plane of motion of a single vertebrae will cause a restriction for further motion of the same vertebrae in the remaining plane(s) of motion. Currently, the clinical palpation tests and observations regarding the dysfunction of lumbar vertebrae are geared towards side bending and rotational movements,^{3,4} even though the major motion of the lumbar spine is flexion and extension, and even though a dysfunction in coronal and transverse planes could significantly affect the further motion of lumbar vertebrae in their dominant motion that is flexion and extension, i.e. on the sagittal plane. In our view, it should be intuitive that any dysfunction in this group of vertebrae may be more easily and directly observed by paying attention to the dynamic motion of the lumbar vertebrae (and its components) in the sagittal plane. Indeed, it was found that a dysfunction in the lumbar vertebrae could be clinically detected and diagnosed by applying the sacral flexion test on the lumbar and lower thoracic vertebrae. Therefore, this study aims to document this finding and explain its theoretical basis and conformance with the existing and well accepted spinal motion laws. It is hoped that an interest leading to a myriad of studies regarding its use, applicability, specificity, sensitivity may be fueled in this area.

Definition

In sacral flexion testing, clinicians use their hands and thumbs to palpate a discrepancy or asymmetry on one dysfunctional side of the sacroiliac junction upon active lumbosacral flexion by the patient. When it is done with the patient in sitting position a positive result indicates a sacroiliac dysfunction and a positive result with patient in standing position is said to indicate an iliosacral dysfunction, i.e. a dysfunction in the lower extremities.

ESFT is performed in a similar fashion to the classical sacral

flexion test. Instead of the lower portion of the PSIS's, each thumb is lightly placed laterally next to the transfer processes bilaterally while grabbing the patients torso with the remaining fingers and palms on either side. Then, the patient is asked to bend over from the waist up without bending his/her hips, knees or ankles. If one of the thumbs moves upward then the test is considered positive on the side of the upward moving thumb.

Literature Search

A Medline research covering up to July 21, 2004, was performed. In addition, using various internet search engines the key words thoracic flexion, lumbar flexion, sacral flexion, cephalad, and thumb were searched. Osteopathic literature was searched via the American Academy of Osteopathy indexes for the years 1938 through 2004. It was noticed that in addition to osteopathic physicians, physical therapists, manual medicine physicians, chiropractors, etc. used the sacral flexion tests, and had even written papers and discussions on the sacral flexion test in the USA and the world.^{5,6,7,8,9} However, none of the retrieved articles had any reference to a test or clinical observation comparable to the one declared in this study. There are a variety of studies in the literature regarding the palpation of lumbar and thoracic vertebrae in the past but efforts were in the direction of evaluating the patient either in rotation or in sidebending to accentuate the effectiveness of palpation, but never while-in-active flexion using the thumbs as discussed above.^{10,11,12} On the other hand in a recent discussion, it was noted that there may be several practitioners who may be using the expanded spinal test on a regular basis, although no additional written records of such use have been suggested.¹³

Purpose

LBP is caused by various etiologies, and, therefore, treatment options may differ. Currently, TART is employed in clinical judgement and diagnosis of LBP. It is often difficult to palpate the dysfunctional vertebral rotations and easy to miss them during the exam unless the clinician has a special interest on the subject with years of palpation experience. It is also difficult to come to a consensus regarding the examination findings, thus leading to misdiagnosis of underlying mechanisms of back pain, particularly in the lower back. A more objective method that can be measured and is visual with more obvious

findings would greatly reduce the efforts to diagnose, to ease the index of suspicion, and result in effective treatment.

Selection Criteria

Inclusion criterion: Any adult or adolescent patient who allowed the palpation test, with or without declared back pain.

Exclusion criterion: Any patient with spinal abnormalities documented with visual records such as X-rays, MRI, CT Scans, or surgical exploratory studies. Also, anyone with a history of spinal surgery, vertebral fusion and other heroic interventions except patients who receive pain management and injections to the nerve roots.

We have examined many patients. Most patients had some sort of LBP or have experienced LBP in their life. Because this study is a pilot for documentation of the test itself, no statistical evaluations were done. We have reported two cases for the purposes of showing the application of the expanded spinal flexion test.

Discussion

Standing or sitting sacral flexion test is probably one of the more exciting clinical tests in osteopathic medicine and one of the more widely accepted and used tests among a spectrum of medical professionals around the world. This excitatory nature of the test is probably due to its visual presentation, observability, reproducibility and, perhaps even measurability, if desired.

In the sacral flexion test, physician places their thumbs on the lower portion of the PSIS's of the patient and grabs the patient's ilia with their palms and asks the patient to bend forward gently without bending his knees. If one of the thumbs moves cephalad during the test then the test is positive indicating a dysfunction on the side of the cephalad thumb, as seen in Figures 1a and 1b.

Figure 1a shows the standard sacral flexion test with patient standing. Figure 1b shows the movement of the thumb as patient is instructed to bend forward. In classical definition, the side with the cephalad thumb motion is assumed to be the dysfunctional side, i.e. the TART changes secondary to somatic dysfunction force

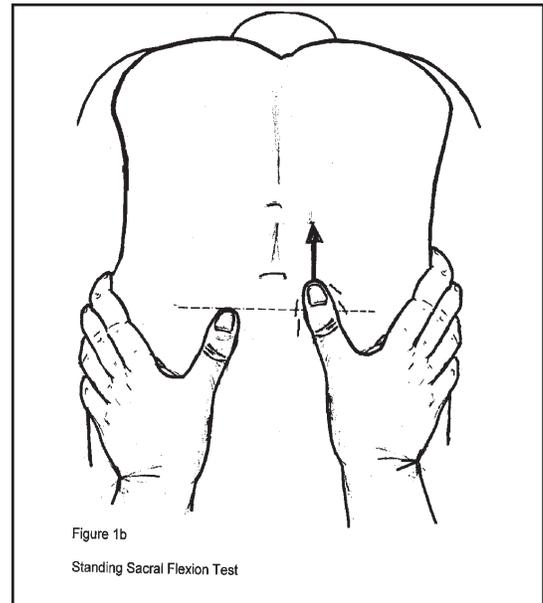


Figure 1b
Standing Sacral Flexion Test

the more superficial tissue to be dragged in the direction of ease of motion. Although the underlying mechanics of a positive SET sign have not been fully understood,¹⁴ it is apparent that one can actually document a motion as well as measuring the distance travelled by the thumb on the positive side.

If the same test is applied to lumbar and lower thoracic vertebrae, similar results are found if there is a dysfunctional segment or a dysfunctional group. Again, Figure 2a shows the holding position for either lumbar or thoracic vertebral segment, and Figure 2b shows the cephalad movement of the thumb on the dysfunctional side.

A question now arises. Does this definition go along with the Fryette's¹⁵ laws for vertebral motion dysfunctions? The answer is "Yes" and the finding is in conformance with Fryette's laws. As a minimum, a positive sign indicates a dysfunction in accordance with the third law of Fryette, i.e. a motion (or displacement) of a vertebra in one axis (or plane) will restrict the motion of the vertebra in other axes or planes. Now, let us look

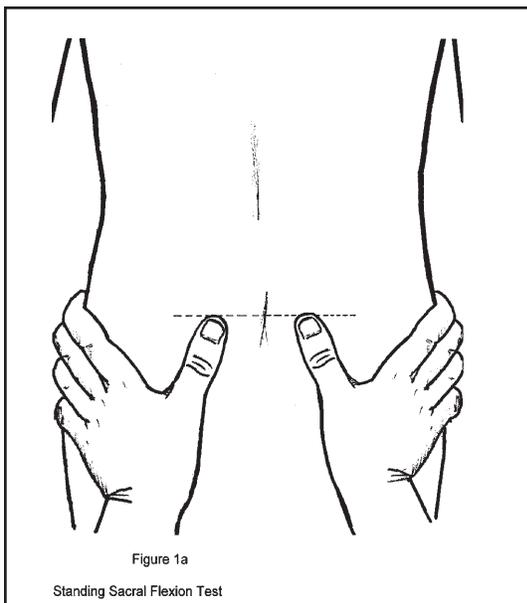


Figure 1a
Standing Sacral Flexion Test

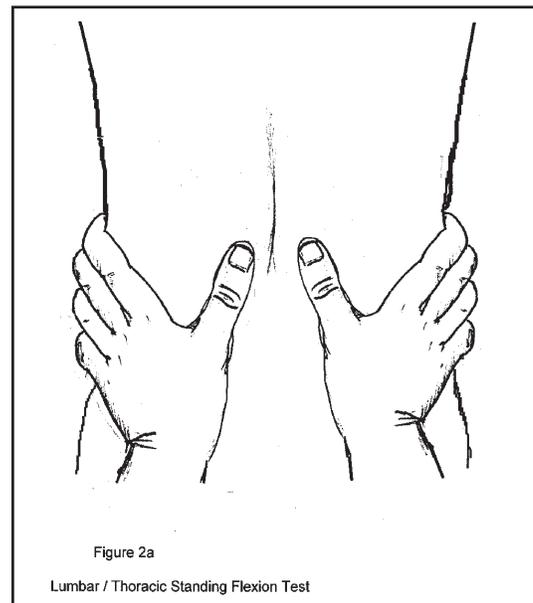
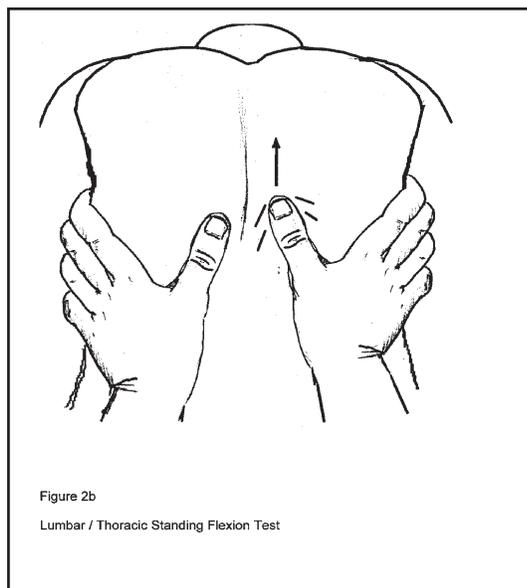


Figure 2a
Lumbar / Thoracic Standing Flexion Test



at Fryette's first and second laws of vertebral motion.

According to the Fryette's first law, if the spine is in neutral position sidebending introduces rotation of a group of vertebrae in the opposite direction, and that side bending occurs first. Fryette's second law states that if the spine is in non-neutral position (i.e. in flexion or extension), rotation and side bending are on the same side and the rotation occurs first.

Here we appear to have a dilemma: the upward motion of the thumb alone is clearly on the coronal plane and cannot possibly tell us which type of dysfunction we are faced with. Or, can it?

We believe this test can tell us the type of dysfunction as it is related to the rotational and sidebending dysfunctions, as well. The key is to repeat the ESFT at several different levels, sequentially. This test can be reproduced by asking the patient to flex several times while the physician is marching from lower lumbar segments in cephalad direction. It may be seen that, similar cephalad thumb movements on the side of rotation may be palpated and visually observed, and even measured. Thus, sequentially repeated positive signs on one side should indicate a Type I dysfunction and a positive sign at only one segment alone should indicate a Type 2 dysfunction. Consequently, interpretation of the test results become intuitive.

The cephalad movement of the thumb follows the freer motion of the vertebral facet and/or transverse processes. Thus, having a positive sign on the right should indicate a sidebending to left.

If we summarize the above, a repeated positive sign on the right, for example, means Type I dysfunction with sidebending left and rotated right, where a single isolated positive sign on the right would mean Type 2 dysfunction with sidebending and rotation to left.

Therefore, it is probably incorrect to talk about a distinctly dysfunctional side as is the case in the classical sacral flexion test where we equate a positive sign with the dysfunctional side.

Results

Patients were shown the Figures 1a through 2b and it was explained that the physician will be doing an additional exam on them, regardless of their current complaint. Patients were also told that this examination may or may not lead to a treatment.

The two cases below were presented as it is related to the use and the positive findings of the ESFT.

In Case #1, Patient was a 45-year-old white male truck driver who was complaining of LBP for two years since he started driving cement trucks. Patient had a spinal CT done that resulted essentially negative. He could not find another job and was on pain killer narcotics. However, patient complained that no amount of pain killer was making his pain better, despite a recent dose increase in his pain medications. During the exam it was found that this was a classical case of left psoas contracture with a non-neutral dysfunction of L5. Patient's L5 was rotated left and sidebent left with standing sacral flexion test positive on left. Patient's left psoas was tight and hip extension was limited compared to the right side. Muscle Energy was provided to the left side. Indirect facilitated positional relaxation method¹⁶ was used on L5, which did not help the dysfunction much. Then patient was given HVLA with lumbar on the side method¹⁷ and this corrected both the sacrum and L5. What is worth mentioning here was that ESFT (as applied to the sacrum) was applied to the L5 level and left thumb moved in cephalad direction. More over, the same test was negative at L4 and upper spinal levels, indicating a single vertebral dysfunction with L5 SB and rotated to left. Patient complained of a new type of pain for two days following the manipulation. Patient was also instructed psoas and LBP specific exercises as well as daily walking. In subsequent visits patient was happy with the dose of his existing pain medication and felt like he was almost painfree. He continues to drive the cement truck on a daily basis.

Case #2, patient was a 44-year-old white male who works as a forklift operator. His work, with recent addition of new responsibilities, required him to push carts and heavy items on a railway. Patient also complained of LBP for years and admitted that he had some before his current job. Patient stated that he was more aware of his pain while standing up, and the pain is slightly on left of his mid-lower back. Eyeballing the hip unleveling, trochanters, ASIS's were not conclusive to make a decision. Lateral maleolar comparison with patient in supine position suggested possible short left syndrome on left. Standing flexion test was positive on left. Palpation of paraspinal musculature and tissue was inconclusive. However, ESFT applied to lumbar levels was positive on left L5T12. That is, the thumb monitoring showed cephalad motion of left thumb indicating a group curve dysfunction and thus defaulting in sidebending right and rotation left (Fryette's Law #1), which appears to be a compensatory response to a shortleg syndrome on left. Patient was recommended left heel lift, exercises to strengthen his lower back and paraspinal musculature, as well as trying to use a rolled up towel when he is resting on his left side to counter-act convexity of the curve on his left.

Why would one need this sign?

First of all, it is more visual and measurable, therefore more objective and less subjective, compared to existing palpation methods. It may be used alone or as a supplementary test to the existing methods.

What is even nicer is that if the dysfunction is on a single vertebra, the physician gets the information about not only the rotation, but also the side bending component of the dysfunction. For example, if one vertebra is sidebent and rotated to the same side, then it is a neutral dysfunction. Conversely, in a group curve, sidebending and rotation will be to opposite sides indicating a non-neutral component.

So this could actually speed up diagnostic logic and support the proper treatment for the diagnosis.

It is an additional tool for confirmation of visual and palpatory exam.

The sign confirms and is in line with the known behavior of spinal motion, i.e. Fryette principles. Therefore, it also is a useful tool in teaching manipulation theory and practice. With this technique, it is probably easier to identify group curves as well as single vertebral dysfunctions along lumbar and lower thoracic vertebrae. This technique could be used in the lower thoracic vertebrae because of the fact that lower thoracic segments are more likely to behave like lumbar vertebrae as opposed to upper thoracic segments and that the ribs attached to these segments are floating ribs.

It appears to be vertebra specific but not pain specific. In other words patient may have a pain in the neck around C4-5 but may still have positive lumbar ESFT.

This test may also be one of the most sensitive test to clinically diagnose any scoliotic changes, although this needs to be proven.

Conclusion

The movement of the thumb in ESFT can indicate both the rotation of the vertebrae and the side of sidebending in a vertebral dysfunction. Depending on how many segments involved one can also determine the type of dysfunction as classified by Fryette. In addition, in a group dysfunction, the apex and vertex segments can also be more objectively evaluated based on the amount of cephalad movement of the thumb.

The ESFT may be used for investigation of various pathologies such as tight psoas on one side, short leg syndrome, trauma, scoliosis, sacroiliac dysfunction, possibly vicerosomatic dysfunctions and other compensatory pathologies that involve lumbar, thoracic and cervical vertebrae.

Naturally a thorough research with more patients is needed to investigate the validity, sensitivity and specificity of this new method. As a matter of fact, a myriad of research topics may be designed to scrutinize and possibly utilize this technique. As stated in the beginning of this paper, the goal of this study was to draw attention to ESFT, create discussion and fuel interest for further research on the subject, because the use of this method can provide more direct and accurate clinical diagnoses as well as increase the speed of clinical decision making.

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Prolotherapy: Above the Diaphragm

Biddeford, Maine • May 13-15, 2005

(Special emphasis on Cervical and thoracic spines, ribcage, shoulder, elbow, wrist and hand.)

Mark. S. Cantieri, DO, FAAO
Program Chair

The program anticipates being approved for 20 hours of AOA Category 1-A CME credit pending approval by the AOA CCME.

Additional Faculty: Thomas Ravin, MD
George Pasquarello, DO, FAAO

COURSE DESCRIPTION: LEVEL III

This is a course designed to instruct participants in the physiology of wound repair using cadavers and prosections. Participants will review the anatomical relationships of tendon 5/15/and ligament structures and gain insight into the referred pain patterns of tendons and ligaments. Also, participants will learn diagnostic and injection techniques for tendon and ligament instability. The course will also include a lecture on coding and billing.

LEARNING OBJECTIVES:

At the end of each session, participants should:

- Readily evaluate for joint instability
- Readily diagnose tendon instability
- Know how to inject unstable tendons and joints

PROGRAM TIME TABLE:

Friday, May 13 8:00 am – 5:30 pm
Saturday, May 14 8:00 am – 5:30 pm
Sunday, May 15 8:00 am – 12:30 noon
(Friday & Saturday include (2) 15 minute breaks and a (1) hour lunch; Sunday includes a 30 minute break.)

COURSE LOCATION:

University of New England College of Osteopathic Medicine
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TESTIMONIALS:

- The course content was excellent, and the practice sessions were great.
- The course was well presented and the flow was great. Good support and review in lectures.
- Great time management.
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Acute Intermittent Porphyria Mimic of Guillain-Barré Syndrome: A Case Report with the Use of Osteopathic Manipulation for Management of Pain

E. Ryann McClennen and Russell Gamber

Introduction

Motor neuropathies include a wide spectrum of clinical presentations and an extensive differential diagnosis. Muscle weakness commonly occurs in patients with an attack of Acute Intermittent Porphyria (AIP) and clinical presentation can mimic Guillain-Barré Syndrome.¹ Both AIP and Guillain-Barré Syndrome (GBS) can be preceded by abdominal symptoms that are followed by a progressive motor paralysis with or without sensory disturbance and including some respiratory paralysis.² The pathologic changes have been described as either peripheral demyelination (GBS) or axonal degeneration (AIP).² Cohen et al. describes a patient with AIP that presented with severe bilateral leg pain and weakness, which progressively worsened³; however there is little in the literature to discuss the rehabilitation procedure necessary for management of long term weakness or pain following attacks of AIP.

The following case represents an interesting incorporation of both the diagnoses of GBS and AIP. Refractory to the primary treatment for GBS and positive urine analysis for porphyria, it is still unclear the exact cause of his symptoms. None the less, the patient possesses a profound debilitating pain that remains following initial acute peripheral motor neuropathy presentation five years ago. Literature is lacking with regards to the rehabilitation benefits of osteopathic manipulative medicine in such complicated cases where standard modalities of treatment provide little relief of pain.

Case Report

A 40-year-old Caucasian male and former boxer, reports to the Osteopathic Manipulative Medicine Clinic in a wheelchair with a chief complaint of bilateral pain in the hips, thighs, lower legs with some radiation to low back. He describes a progressive, constant, debilitating, burning (sometimes sharp) pain that began in April 1999, following gastrointestinal illness and pain. At that time, he had a sudden onset of sharp pain in his right calf followed by a loss of sensation of both feet over 4-5 days, which then progressively spread proximally. He was subsequently admitted to the hospital for five days observation, following progressive paralyzation including respiratory difficulty without subsequent intubation. During this hospitalization, he was diagnosed as having Guillain-Barré Syndrome, although cerebral spinal fluid (CSF) failed to demonstrate elevation in protein without accompanying pleocytosis. Following discharge, patient subsequently failed intravenous immunoglobulin therapy in an outpatient setting with complaints of fever, diaphoresis, and diffuse body aches. Patient also received gabapentin (Neurontin) without any relief. Three months following initial presentation, the patient received carisoprodol (Soma) and amitriptyline (Elavil) which lead to a profound regression in his condition. After stopping all medications, he was found to be porphobilinogen positive on urine analysis and was diagnosed with Porphyria. The patient's current medications include BUPROPION

(Wellbutrin) and ibuprofen (Motrin). Electromyogram (EMG) studies were done at the onset of disease and were found to show abnormal neuromuscular activity. Repeat studies done in 2002, three years following initial presentation, showed restoration of neuromuscular function. The patient currently, five years post initial presentation, describes a return of sensation and motor function with a decrease in strength; however he describes a profound debilitating pain that makes daily functions difficult. Formerly employed as a technician for Motorola, he is currently drawing disability following the onset of his current diagnosed medical conditions. He reports the pain is unrelenting and is worse with prolonged standing or sitting. As a result of his pain, he has remained wheelchair bound even though he is able to walk with the assistance of a cane. The use of the cane is complicated by bilateral carpal tunnel syndrome which limits his tolerance. The patient further reports that he recently was given bilateral lidocaine injections by a physiatrist in his trochanteric bursa five days prior to his initial consultation at the OMM clinic. The patient claims that the injections have given him a fair amount of relief in his hips and thighs. He denies any other treatment that gives him any significant relief, and due to his porphyria he is very limited in acceptable pain medications. The patient further claims sensitivity to sunlight if exposed for prolonged periods of time. Past medical history is significant for fractures to the right wrist and humerus.



Additionally, due to his history of being a boxer, the patient has bilaterally fractured nearly all bones in his hands. He suffered head and left arm trauma following a motor vehicle accident in 1995. The patient further claims being hit by a car as a child while riding his bike and being thrown into the windshield. He also has a history of right knee and lumbar trauma and gallbladder surgery in 2002. The patient stopped smoking in 1997 and currently denies any use of alcohol or any known drug allergies. He is currently under the cooperative care of his primary care physician, pain management specialist, neurologist, and physiatrist.

Physical Exam and Treatment

The patient had significant difficulty tolerating the initial exam due to increasing discomfort during the exam. Reflexes were intact bilaterally in both the upper and lower extremities. Muscle strength was diminished to one out of five bilaterally in the lower extremities and four out of five bilaterally in the upper extremities. Fine touch and pin-prick sensation to the upper and lower extremity were intact bilaterally. On his initial visit, his pain was a four out of ten; however this was five days post lidocaine injections to his trochanteric bursa. His cervical spine, C3 was rotated left, side bent left (R1S1) and the thoracic spine, T3 and T4 was side bent right, rotated left (SrR1). There were bilateral tenderpoints at the sacrotuberous ligament, sacroiliac joint and iliolumbar ligament (particularly on the right). Additionally, there was a tender point at L5-S1. There were also bilateral tender points at the piriformis muscle. In the upper extremities there was bilateral carpal tunnel tightness and in the lower extremities the left leg malleolus is 1/4" longer than the right. Myofascial release and strain/counterstrain OMT were performed on the above dysfunctions and somatic dysfunctions improved following treatment. The patient was also educated in self-treatment of tender points and stretches to do throughout the day. On the following return to clinic, the patient reported significant pain for the five days (eight out of ten) following treatment, however he did notice some increase in mobility and improvement in overall pain. During this visit

he was again noted to be R1S1 at C3-4 and side bent left, rotated right (S1Rr) at T6-8. The patient had bilateral tender points at iliolumbar ligament, sacrotuberous ligament, sacroiliac joint and piriformis muscles. Additionally, there was again a tender point at L5-S1. Furthermore, he has bilateral carpal tunnel tenderness, calf muscle, Achilles tendon and arch of his foot tender points. Again myofascial release and strain-counterstrain OMT were performed with relief of somatic dysfunction. On a third subsequent visit, the patient states that he felt there has been small overall improvement since the start of treatment. He feels he has "good days" and "bad days". He continues to stretch and was again reminded of the importance of regularly releasing his own tender points. During this visit his cervical C3-4 are R₁S₁ and thoracic vertebrae T3-5 are S_rR₁. The patient again presents with a tender points at his right sacroiliac joint, piriformis muscle and calf muscle. Overall, his body appears to have less somatic dysfunction than his initial presentation less than one month prior. The same therapeutic regime was again followed during this visit and the patient was instructed to follow-up in the clinic in three weeks.

Discussion

Although the above case presentation was initially diagnosed with GBS, it is possible that his current manifestations are actually remnants of an acute intermittent porphyric attack. Millward et al. reports that many porphyria patients have an average time of six years from the onset of symptoms to diagnosis.⁸ Additionally, there is currently no reliable serological marker for GBS and disorders that mimic GBS include various neurotoxins, heavy metals, chemical toxins, drugs, vasculitis, hereditary disorders (AIP), infections, critical illness, and myelopathy.⁵

Acute Intermittent Porphyria (AIP), the most common of the inherited diseases of porphyrin metabolism, is an autosomal dominant condition caused by a defective allele for porphobilinogen (PBG) deaminase, a component necessary for heme biosynthesis. Most heterozygotes remain asymptomatic unless exposed to factors that increase the demand for hepatic heme. Alcohol ingestion, low-calorie diets, endogenous and exogenous steroids, and a va-

riety of drugs can be precipitating factors (Table I).

The major manifestations of the hepatic porphyrias include neuropathic abdominal pain, neuropathy, and mental disturbances, although the pathogenesis for these problems is poorly understood.²

Abdominal symptoms are often the first complaint and may include nausea, vomiting, constipation or poorly localized colicky pain.⁴ Abdominal symptoms are neurologic rather than inflammatory and abdominal tenderness, fever, and leukocytosis are usually absent or mild.² Peripheral neuropathy is due to axonal degeneration and primarily affects motor neurons.⁵ Often the first symptoms occur in the arms, motor neuropathy affecting the proximal muscles first²; although distal lower extremity presentation does not exclude diagnosis. Although the majority of neuropathies associated with metabolic processes are categorized as diffuse symmetrical axonal damage with most severe damage usually being associated with the longest and most distal axons.¹¹ Electrodiagnostic findings usually show active denervation with profuse fibrillation potentials.¹² AIP can have a diffuse presentation of symptoms. Andersson et al. describes a patient who presented with progressive paresis in arms and hands; she dropped things, could not extend her fingers and could not write.⁶ Cohen et al. describes another porphyria patient who presented with recurrent severe leg pain and weakness. Additionally, progressive muscle weakness can lead to respiratory difficulties.² AIP is commonly seen in association with dysautonomia, chiefly autonomic over-activity. These symptoms frequently include: abdominal colic, hypertension, and tachycardia.⁷ Neuropsychiatric manifestations of AIP can include anxiety, insomnia, depression, disorientation, hallucinations, and paranoia during acute attacks.² After an attack resolves, abdominal pain may disappear within hours, and paresis begins to improve within days and may continue to improve over several years.² Severe porphyrias have had recurrent attacks with differing degrees of severity over a long period of time. Additionally, according to Millward et al., quality of life is lower in AIP. Patients surveyed had major life consequences including a failure to secure or loss of employment.⁸ Furthermore, indescribable, severe physi-

Table I. Drug recommendations for patients with acute porphyric disorders

Contraindicated (Unsafe)	Indicated (Safe)
Alcohol	Acetaminophen
Amitriptyline	Acetylsalicylic acid
Amphetamine	Acyclovir
Barbiturates	Amphotericin
Carbamazepine	Ascorbic acid
Chloroform HCL	Atropine
Clonazepam	Azathioprine
Clonidine	Beclomethasone
Dapsone	Bupivacaine
Erythromycin	Cephalosporins
Estrogen	Chloral hydrate
Etidocaine	Cholpromazine
Flurazepam	Codeine
Hydantoin	Dexamethasone
Glutethimide	Diazepam
Imipramine	Diffunisal
Lidocaine	Diphenhydramine
Mepivacaine	Fentanyl
Meprobamate	Folic acid
Methyldopa	Gentamicin
Metoclopramide	Guanethidine
Miconazole	Ibuprofen
Oral Contraceptives (some)	Iron
Oxazepam	Lithium
Oxycodone	Meperidine
Pentazocine	Morphine
Phenacetin	Neostigmine
Phenobarbital	Nitrous Oxide
Phenytoin Sodium (Dilantin)	Nortriptyline
Sulfonamides	Penicillins
Thiopental Sodium	Phenothiazines
Tranlycypromine	Procaine
Trazodone HCL	Propranolol
Valproate	Reserpine
	Streptomycin
	Succinylcholine
	Tetracaine
	Trifluoperazine

Moore et al. Acute Porphyric Disorders. Oral Surgery, Oral Medicine, Oral Pathology. September 2000. 90:3:257-62.

cal pain was discussed in Wikberg et al., in association in women with recurrent AIP attacks.⁹

Pain is a common and difficult problem to treat in peripheral neuropathies. Analgesics are often ineffective against peripheral neuropathic pain; therefore, the first line of treatment includes tricyclic antidepressants or trazodone. Second line treatment can include carbamazepine or gabapentin.¹⁰

Traditionally, treatment for neuropathic pain becomes extremely complicated in the case of AIP patients. The first and second line treatments are contraindicated with a porphyric condition and can perpetuate or exacerbate a current attack.⁴ This then becomes an excellent opportunity for Osteopathic Manipulative Therapies to profoundly benefit patients in AIP.

OMT techniques are based on treat-

ing the articular, circulatory, immunologic, myofascial, neurologic and visceral ramifications of somatic dysfunction. Somatic dysfunction is defined as impaired or altered function of related components of the somatic system. Direct treatments (i.e. high-velocity-low-amplitude (HVLA), muscle energy, myofascial release, and cranial) engage a restriction barrier while indirect treatments (i.e. strain-counterstrain, facilitated positional release, myofascial release, and cranial) take the patient away from a barrier in an attempt to reduce tension to a minimum. The patient presentation delegates which treatments or combinations of techniques are used. Typically, for patients with severe, intense pain, indirect techniques are preferred.¹³

It has been postulated that the hypertonicity of acute somatic dysfunction is due to the increased rate of firing of sympathetic fibers as a result of increased visceral pain, maintaining the muscle tone at the level of the segment involved. The strain-counterstrain approach allows for major dysfunction areas relating to the pain complaint to be discovered, i.e. tenderpoints. The treatment also works to overcome the abnormal flow of afferent impulses in the involved musculature which have fixated joint motion maintaining the dysfunction. The mechanism of action is believed to be that of resetting abnormal efferent and afferent apparatus: the alpha-gamma fiber loop. With pain reduction, exercise and range of motion techniques can be introduced which further increase the patient's rehabilitation.¹⁴

Fascia, the connective tissue throughout the body, increases proportionately with tension force or mechanical requirements; sustained tension can lead to fascial thickening and shortening. Entrapment of venous blood and lymph vessels in the fascial restrictions, due to changes in muscle activity and fascial tension, leads to chronic passive congestion, edema, pain and eventual fibrosis. Myofascial release techniques produce a balancing of various proprioceptors, Golgi tendon organ apparatus and muscle spindle, to lengthen muscles through release of fascial restrictions. With release of restrictions in addition to local temperature increases, lymph flow and



venous return of blood is enhanced which further perpetuates the natural healing of the body in the areas of dysfunction. In the AIP patients, myofascial release of restrictions would promote axonal regeneration and aid in relieving pain. Additional stretching exercises and strengthening routines promote healing and encourage continued range of motion improvement to facilitate a shorter recovery time. All in all, OMT provides a variety of additional modalities for treatment in the AIP patient when pharmacological management becomes difficult. The above patient continues to improve with each treatment and hopefully will continue to progress towards his goals of regaining strength and pain management.

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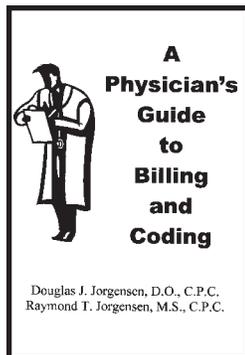


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Book Review

Reviewer: Anthony G. Chila



A Physician's Guide to Billing and Coding

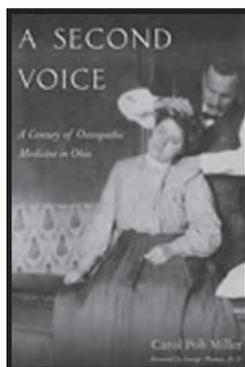
Douglas J. Jorgensen, DO, CPC

Raymond T. Jorgensen, MS, CPC

pp. 165, incl. Index. (c) 2004 by Douglas J. Jorgensen, DO, CPC and Raymond T. Jorgensen, MS, CPC. (www.academyofosteopathy.org) \$25.00

The authors provide guidelines, recommendations and interpretations to be used as a guide for implementation in individual practice(s). The approach utilized offers the best evaluation and management (E&M) recommendations to date, conservatively presented and remaining within federal guidelines. Emphasis is placed on the fact that correct coding can arise from observing a few simple rules and is not difficult to accomplish. Eight chapters cover the following topics: Current Procedural Terminology (CPT); International Classification of Diseases (ICD); Evaluation and Management Services and the Federal Documentation Guidelines; The History; The Physical Examination; Medical Decision Making; E&M Code Selection; Charge Setting.

In addition to very readable explanations of the significance of the various topics, historical reviews are often provided, as well as discussions about the progression of thought associated with each. The conciseness with which all of this is accomplished makes this volume a small but very powerful aid to the successful management of today's complex health care provider environment. Strongly recommended for a happier and more successful practice.



A Second Voice

A Century of Osteopathic Medicine in Ohio

Carol Poh Miller

pp. 161, incl. Index. (c)2004 by Ohio University Press (www.ohio.edu/oupres). Cloth, \$49.95; Paper, \$24.95.

The rapid growth and expansion of the osteopathic profession during the last quarter of the 20th century is occasion for pause and reflection. This volume offers that opportunity. For many years, the state of Ohio has been among the top 3 states in relative strength of osteopathic medicine. As is true of other states, the profession's history in Ohio has been characterized by unity, leadership, the passing of leaders and the contemporary economic change in the landscape. Through an extensive search and selection process, the charge to the author was "to write a scholarly, objective history that would be thoroughly documented, factually accurate, and readable—a work written to appeal not only to D.O.'s, their employees, and their patients, but also to the educated general reader." As acknowledged by the author, "Writing this history required substantial self-education."

Six chapters describe: Pioneers; The Struggle for Recognition and Equal Practice Rights; Moving Forward; Postwar Strides and Setbacks; An Ohio College of Osteopathic Medicine; A Second Voice. Appendices provide: Timeline of Osteopathic Medicine in Ohio; Presidents of the Ohio Osteopathic

Elsewhere in Print

SKIN RESISTANCE vs. BODY CONDUCTIVITY:

On the Background of Electronic Measurement on Skin

Subtle Energies & Energy Medicine: Volume Fourteen, Number Two; 151-174

Chang-Li Zhang: College of Life Science, Zhejiang University, Hangzhou 310028, China or: Facbereich 4, Siegen University, D-57086 Siegen, Germany

Electronic measurement of the acupuncture system is discussed by the author. Initial acknowledgment of the continuing stubborn challenge to established scientific knowledge is coupled with the absence of anatomic evidence. The author suggests that if acu-meridian and Qi really exist, then revision of modern scientific views of body-mind is clearly in order. The clinical success of the acupuncture system requires research for better understanding of the old medical model as well as the development of modern science itself.

Various critical problems of electronic measurements on the acupuncture system are discussed: Size, shape, location and stability of acu-points and acu-meridians; violent fluctuation of measurement data; transmission and speed of signal along meridians; parallel distributions between higher-conductivity and higher sound intensity points; mathematical background of log-normal distribution of measurement data.

Ten experiments are described which were involved with questioning the terminology "Skin Resistance". An example is Experiment 3, which considered the movement of acu-meridian and acu-point on a large scale. Consideration is given to the observation that landscape conductivity on skin having some correlation with the acupuncture system is dynamic and not fixed; great change may be noted in some special pathological, physiological or psychological conditions. It has been observed that "sensation propagation" usually coincidental to acu-meridians can have large variations in special pathological states. This phenomenon can be objectively electronically measured. Rapid changes in "skin resistance" can occur during a needling operation. The summary of Experiment 3 indicates that "The large scale movement of acu-meridians and acu-points tells us that the acupuncture system is not some fixed network like the blood vessel network or nerve fiber network, but something which is a dynamic structure. In the normal state of a body-mind system, the structure is relatively stable. The outline of the relatively stable structure was somehow discovered by ancient people and roughly described in the theories of acupuncture and ayurveda as an acu-meridian network and chakras.

Further analysis of measurements considered: Skin layers and the reading of electronic measurement; Conductivity vs. Resistance; Acupuncture System and Heterogeneous Distribution of the Electromagnetic Field; The Source of the Heterogeneous Distribution of the Electromagnetic Field Inside a Body; The Relationship Between the Inner Electronic Field and Outside Radiation; Mathematical Background of the Statistical Behavior of Measurement Data; The Rough Picture of the Invisible Dissipative Structure.

Emerging conclusions of this extensive effort suggest that the invisible dissipative structure of electromagnetic fields are chiefly composed of an interference pattern of standing waves in the resonance cavity of the human body under condition of permanent support of energy in an open system. To some extent, this corresponds to the acupuncture system and carries close relationship to many energetic medicine systems. This in turn offers a new understanding of the background of acupuncture as well as other branches of holistic medicine. Not least, a scientific and quantitative way to evaluate the degree of coherence (harmony) of a body-mind system.



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