

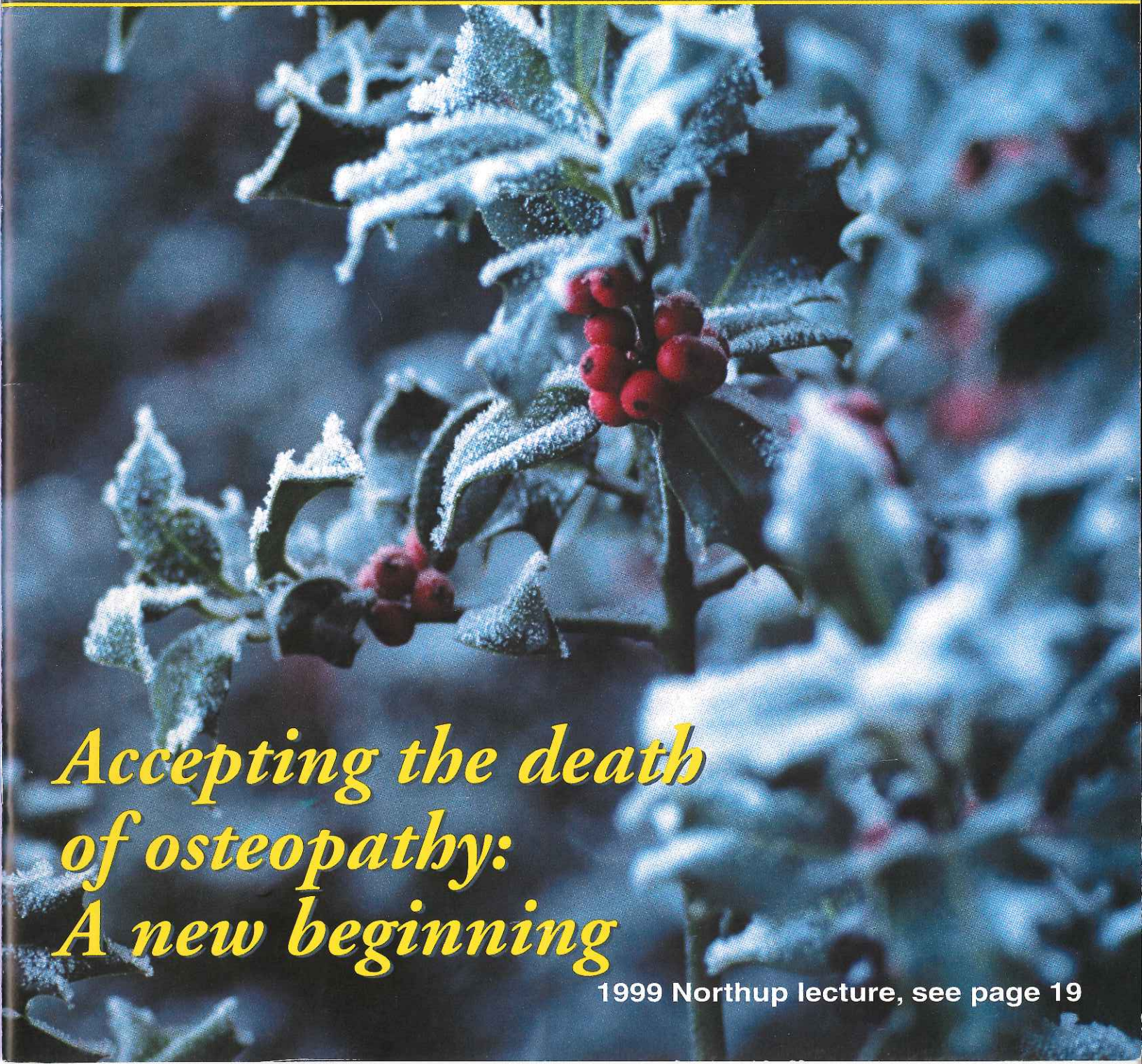
THE AAO

JOURNAL



A Publication of the American Academy of Osteopathy

VOLUME 9 NUMBER 4 WINTER 1999



*Accepting the death
of osteopathy:
A new beginning*

1999 Northup lecture, see page 19

AAO's CME Calendar

American Academy of Osteopathy®
3500 DePauw Boulevard, Suite 1080
Indianapolis, IN 46268-1136
Phone: (317) 879-1881 or FAX: (317)879-0563

January, 2000

20-23
Introduction to OMT/HVLA
Sanibel Harbour Resort
Ft. Myers, Florida
Hours: 23 Category 1A

February

10-11
Facilitated Positional Release
Holiday Inn Airport
Indianapolis, IN
Hours: 12 Category 1A

11-13
Myofascial Release
Holiday Inn Airport
Indianapolis, IN
Hours: 20 Category 1A

March

20-22
Visceral Manipulation/Manual Thermal Diagnosis
Renaissance Cleveland Hotel
Cleveland, OH
Hours: 24 Category 1A

23-26
2000 Annual Convocation American Academy of Osteopathy
Renaissance Cleveland Hotel
Cleveland, OH
Hours: 30+ Category 1A

April

14-16
Ligamentous Articular Strain
Holiday Inn Select Airport
Indianapolis, IN
Hours: 20 Category 1A

28-30
Muscle Energy Tutorial
Holiday Inn Airport Select
Indianapolis, IN
Hours: 20 Category 1A

May

12-14
Stimulated Ligament Reconstruction/ Above the Diaphragm (Prolotherapy)
UNECOM
Biddeford, ME
Hours: 20 Category 1A

June

2-4
The Still Technique: A Manipulative Method of Andrew Taylor Still, MD
Holiday Inn Airport Select
Indianapolis, IN
Hours: 20 Category 1A

14-16
Diagnosis and Treatment of Low Back Pain
Big Sky Resort
Big Sky, MT
Hours: 20 Category 1A

July

14-16
Alleviation of Common, Chronic Pain by Optimization of Posture
OSUCOM
Tulsa, OK
Hours: 20 Category 1A

August

17-20
OMT Update
Contemporary Hotel
Buena Vista, FL
Hours: 23 Category 1A

25-27
Visceral Manipulation/Abdominal/GI
Holiday Inn Airport
Indianapolis, IN
Hours: 24 Category 1A

September

13-15
Therapeutic Exercise with OMT
Holiday Inn Airport
Indianapolis, IN
Hours: 20 Category 1A

16-17
Advanced Percussion Vibrator
Holiday Inn Airport
Indianapolis, IN
Hours: 14 Category 1A

October

13-15
Stimulated Ligament Reconstruction/ Below the Diaphragm (Prolotherapy)
UNECOM
Biddeford, ME
Hours: 20 Category 1A

October 29-November 2
AOA/AAO Convention
Orlando, FL

December

1-3
Visceral Manipulation/Thorax/Dura
Holiday Inn Airport
Indianapolis, IN
Hours: 24 Category 1A

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Opinions expressed in *The AAO Journal* are those of authors or speakers and do not necessarily reflect viewpoints of the editors or official policy of the American Academy of Osteopathy or the institutions with which the authors are affiliated, unless specified.

The mission of the American Academy of Osteopathy is to teach, advocate, advance, explore, and research the science and art of osteopathic medicine, emphasizing osteopathic principles, philosophy, palpatory diagnosis and osteopathic manipulative treatment in total health care.

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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.

Professional News of promotions, awards, appointments and other similar professional activities.

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 Raymond J. Hruby, DO, FAAO, Editor-in-Chief, MSU-COM, Dept. of Osteopathic Manipulative Medicine, A-439 E. Fee Hall, East Lansing, MI 48824.

Editorial Review

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 receipt 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:

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1. Type all text, references and tabular material using upper and lower case, double-spaced with one-inch margins. Number all pages consecutively.
 2. Submit original plus three copies. Retain one copy for your files.
 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.
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Provide a 150-word abstract that summarizes the main points of the paper and its conclusions.

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1. Be sure that illustrations submitted are clearly labeled.
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3. Include a caption for each figure.

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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.

Editorial Processing

All accepted articles are subject to copy editing. Authors are responsible for all statements, including changes made by the manuscript editor. No material may be reprinted from *The AAO Journal* without the written permission of the editor and the author(s).

From the Editor

by Raymond J. Hruby, DO, FAAO



The AAO Journal: The Next Generation

"The only thing we know for certain is that things change." I am not sure if that is a quote from someone famous or if I just invented it, but somehow I think that some obscure philosopher must have spoken those words. As I sit here writing this, it strikes me that this will be my last editorial page as editor of *The AAO Journal*. It is interesting to reflect on how far the Journal has come, and how it has changed and evolved over time.

Somewhere in 1989, the decision was made to convert the newsletter of the AAO into a full-fledged journal. The team consisting of Dick Dyson, Executive Director of the AAO, Laurie Beth Jones, AAO's marketing consultant, Sarah Neel, managing editor, and myself, set about the task of creating *The AAO Journal*. The goals were to add another level of professionalism to our publications and to use the Journal to increase the visibility of the AAO around the world. As editor, I had a few additional goals in mind for the Journal. One goal was to provide a forum where contributors could write about the science AND the art osteopathic medical practice. Another goal was to expose the readers to some of the historical literature available about osteopathic medicine, about which I find too few people are familiar. A third goal was to encourage student contribu-

tions to the Journal. A fourth goal was to develop the Journal into a peer-reviewed publication. Finally,

*"The only thing
we know for certain
is that things change."*

I set a goal to develop an electronic form of the Journal for publication on the World Wide Web.

And so, the major features of the Journal were developed. Laurie, Dick, and Sarah used their collective expertise to establish the professional image of the Journal that we have come to know. In order to expose the readers to the wealth of information available in the older osteopathic literature, I instituted the "Archival Article", excerpts from osteopathic writings of the past. In addition, I have been flattered by the favorable reception given to the now famous, "often-imitated-never-replicated", *"Letter to A. T. Still."*

Student input came from periodic reports from UAAO officers, case studies, and articles written by students specifically for the Journal. We have always received a wealth of information from contributors who wrote about topics that reflected the art of osteopathic practice.

Eventually it was time to move the Journal to peer-reviewed status. With a little research and sound sage advice from editors of other journals, the peer review process for *The AAO Journal* was started. In order to preserve the goal of having a forum for the expression of the science AND art of osteopathic medicine, the Journal was divided into two sections, one section being the peer-reviewed section. With the assistance of Steve Noone, our current AAO Executive Director, and the tireless work of Diana Finley, our Managing Editor, the Journal has progressed to its current state.

This past year we have achieved the goal of establishing the electronic version of the Journal. With the help of the AAO's webmasters we have succeeded in uploading the Fall issue of the Journal to the AAO's website.

Needless to say, we have enjoyed the success of the Journal. In the beginning we worried just a little about whether we would have enough content for each issue of the Journal. Now we have so many excellent manuscripts submitted from all over the world that we cannot keep up with the amount of content we have to publish! While I have received many compliments about

continued on page 8

Message from the President

by Mark S. Cantieri, DO, FAAO



I am surprised how many Academy members will ask me if the time spent being the president is excessive. I have been able to manage quite well with a minimal amount of interruption of my time in my private practice. It helps that I work Monday through Thursday and always take a three-day weekend. I will work 40 hours in those four days and it does make for a long day. Having a three-day weekend every week is something I would highly recommend, particularly for those of us with young families. However, many of the weekends this year have been used to attend to Academy business.

I recently returned from the AOA Convention in San Francisco. I am happy to report that things were relatively quiet. The one issue that may be a hot item and come up again at the next House of Delegates will be utilization of the term "osteopathy". There continues to be a push to use this term for the practice of non-USA-trained DOs and the term osteopath for the practitioner who is not trained in the United States. The sentiment is that this will help to differentiate those DOs trained internationally from those trained in the United States who have full practice privileges. I perceive this as another onslaught against the Academy, and then the Academy would be forced to change its name. I have no desire to delete the term osteopathy from our name. I would ask that all Academy members bring this to the attention of the delegates from their states and vigorously oppose this resolution.

The Academy has worked hard to be a team player regarding the name change in OMM certification. It is now time that that same team player mentality and efforts be extended to us in preserving our name and heritage.

I was excited to see the list of nominees for the various offices in the Academy for the coming year. I was particularly pleased to see the quality of individuals willing to give their time to the Academy.

I am hoping that many other members will respond to Dr. John Jones' request for serving on a committee. It is at this level that people make themselves visible and have the opportunity not only to contribute to the Academy but also to move up through the ranks. Thank you for the opportunity to serve the Academy and I look forward to providing the same opportunity to all those who follow. □

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Message from the Executive Director

by Stephen J. Noone, CAE



AAO Members Share Time, Talent, and Treasure

While attending the AOA Annual Convention and Scientific Seminar in San Francisco, I got excited once again as I personally observed how much time, talent, and treasure that members of the American Academy of Osteopathy generously give to the osteopathic medical profession. I feel fortunate to work with an organization whose leaders so conscientiously dedicate themselves to its Mission.

The Mission of the American Academy of Osteopathy is to teach, advocate, advance, explore, and research the science and art of osteopathic medicine, emphasizing osteopathic principles, philosophy, palpatory diagnosis and osteopathic manipulative treatment in total health care.

At the risk of omitting any individual's contributions to the profession, I cite here some notable areas of service. President **Mark Cantieri** and President-elect **John Jones** attended the AOA Board of Trustees meeting on Friday and Saturday and interacted with the profession's political leaders, who now frequently approach the Academy's leadership for counsel and support. AAO Trustee **Boyd Buser** also attended the Board's meeting as a representative of the National Board of Osteopathic Medical Examiners. He participated in NBOME's meetings with AOA leaders throughout the weekend to plan for continued validation of the profession's unique Comprehensive Osteopathic Medical Licensing Examination (COMLEX).

Immediate Past President **Melicien Tettambel** delivered a truly-osteopathic keynote address at AOA's second National Symposium on Women's Health on Saturday. This highly-successful community forum provided not only a significant service to the local community, but generated substantial media coverage for the profession. AAO Trustee **Dennis Dowling** chaired his first meeting of the AOA Committee on Osteopathic History, charged by the AOA House of Delegates to facilitate the teaching of osteopathic history in colleges of osteopathic medicine, encourage students to adopt osteopathic principles and prac-

tice, and integrate OPP into the seamless curriculum in osteopathic medical education.

Joan M. Radjieski, DO accepted the *Journal of the American Osteopathic Association's* George W. Northup, DO Medical Writing Award during the opening session of the Convention. She was the senior author, along with **Mark S. Cantieri**, DO, FAAO and **Mark A. Lumley**, PhD, of a May 1998 article entitled "Effect of Osteopathic Manipulative Treatment on Length of Stay for Pancreatitis: A Randomized Pilot Study."

At the 43rd annual AOA Research Conference, **Stanley Schiowitz**, DO, FAAO presented the profession's prestigious Louisa Burns Memorial Lecture. He titled his lecture "Osteopathic Research and the Medical School: The Next Century." Dr. Schiowitz is Dean of the New York College of Osteopathic Medicine.

In addition to the Board of Trustees conducting a full-day meeting on Sunday, a number of AAO committees met during the week. Chairperson **Charles Smutny** convened the Louisa Burns Osteopathic Research Committee and Dr. **Sandra Sleszynski** chaired the National Osteopathic Clinical Data Base Task Force. The immediate focus of their attention at this full-day meeting was planning for the Osteopathic Collaborative Clinical Trials Initiative Conference scheduled for December 11-12 in Bethesda, MD. This profession-wide conference will address the lack of quantitative and qualitative research data supporting osteopathic manipulative treatment and its health benefits. The LBORC has been the driving force behind this conference and seeks to advance its efforts to develop an electronic osteopathic SOAP note to facilitate increased research on OMT in patient care.

Since the primary purpose of the AOA Convention is education, the Academy's program certainly provided an interesting alternative for conventioners. Program Chairperson **Ross Pope** developed a didactic program around the theme "Balancing Your Practice with OMT" and attracted registrants from a variety of participating AOA-affiliates, many

→

sessions with standing-room-only crowds. Dr. **James Jealous** delivered a most provocative T. L. Northup Lecture to a packed auditorium which included a number of AOA's political leaders. His topic was "The Death of Osteopathy: A New Beginning."

AAO members also served as lecturers at the educational programs conducted by other AOA-affiliated organizations at the Convention. Moderators or faculty included Drs. **Jane Carreiro, Charles Crosby, Jeffery Etemad, Aline Fournier, Jan Iwata, Martin Levine, Donald Noll, David Padgett, John Sessions, Scott Stoll, Jim Sylvain, Elaine Wallace, and J. Michael Wieting.**

At this annual event, it seems that there is an endless appeal for charitable contributions to various osteopathic causes, including the American Osteopathic Foundation, the AAO's Unity Campaign, the Auxiliary to the American Osteopathic Association, and annual appeals from individual physicians' colleges of osteopathic medicine. There is also a highly visible solicitation for contributions to the Osteopathic Political Action Committee. I continue to be impressed with the participation of AAO members in these appeals.

Don't Forget the Academy

As you consider your personal future in the profession and your commitment to share your own time, talent and treasure, please include the Academy in your deliberations. President-elect **John Jones** welcomes self-nominations for service on AAO committees and task forces. There are also opportunities for AAO members to make tax-deductible, charitable contributions, either to the annual fund (the Golden Ram Society campaign) or to the endowment fund (TRUST 2000: A Legacy to the Osteopathic Profession.) I look forward to helping you determine how you might best serve the Academy in the future. □

continued from page 5
Message from the Editor

my work with the Journal, I cannot emphasize enough that none of this would be possible without Diana Finley's efforts. Her work in collating the material, scanning documents and getting camera-ready copies ready for the printer is priceless. She is also the person who initiates the choice of the cover for each issue of the Journal. In nine years we have received less than a handful of complaints about the Journal, something that is extraordinary to say the least.

As I leave the editorship of the Journal, I would like to say thank you to some special people. My thanks to Diana Finley for her untiring efforts to get each issue ready for the printer on time; to Steve Noone for his proofreading and his executive guidance; and to the AAO Publications Committee for their helpful advice; and to the AAO Board of Trustees for their support in our efforts to succeed with the Journal. Most of all, my thanks to the readers of the Journal, for your support, your feedback, and your kind letters and remarks.

While I leave the editorship of the Journal I do not do so without leaving the Journal in good hands. Anthony Chila, DO, FAAO, has been named editor of the Journal beginning on January 1, 2000. Those of you who know Tony know that he has excellent qualifications for this task. Tony is a long-time friend, colleague, and mentor to me and, I have every confidence in his ability to move the Journal to even greater heights in the future.

So once again, thanks to all of you, best of luck to Tony with the Journal, and I will see all of you at Convocation! □



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1. Your Endowment Will Endure

The Academy's endowment is like an artesian well; it will never run dry. That's because our policies prohibit us from spending the principal. Only the income can be used to meet the purposes of the endowment.

For example, let's say you create an endowment to provide educational scholarships. Once established, your endowment will generate these financial grants every year. Even after you're gone, your endowment will live in perpetuity. A hundred years from now, students will benefit from your prudent planning and generosity.

This enduring quality makes endowments the perfect tool to create a lasting legacy. Buildings may crumble and programs may change, but your endowment will endure!

2. Your Endowment Will Enable

Regular cash gifts to the Academy certainly help us meet our financial obligations. But what happens when the donor dies? Or what if these cash gifts are not so readily available in lean years? Because of their enduring quality, endowments enable us to

plan ahead with confidence. We can project endowment income and develop programs accordingly.

Sometimes donors create endowment funds to enable the AAO to accomplish more than we could ordinarily do through normal budget appropriations. For example, the Robuck Fund provides ongoing resources for pediatric educational and research projects, and the Swift Fund advances the study of osteopathic manipulative treatment in patient care.

Your endowment could enable the Academy to be a stronger, more viable organization. It will help us not only meet current needs, but face the future on solid ground.

3. Your Endowment Will Ennoble

When you establish an endowment, you ennoble the American Academy of Osteopathy. That is, you deepen our financial foundation and lift us higher in the minds of our members and the profession at large. Through your endowment, you say, "This is an organization worthy of my resources. I expect the Academy to be fulfilling its mission far into the future."

Your prudent and forward-looking decision encourages us and challenges us to honor your "investment."

Ennoblement spreads to your family as well. Your children and grandchildren have added reason to appreciate their heritage. The ongoing impact of your endowment reminds them of who they are. It lifts their own sights and inspires a benevolent spirit.

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EILEEN DIGIOVANNA, DO, FAAO,
PROGRAM CHAIR & INSTRUCTOR

Course Description: Facilitated Positional Release (FPR) is an osteopathic manipulative technique developed by Stanley Schiowitz, DO, FAAO. Utilizing easy diagnosis and principles, the methodology involves technique of positioning, the addition of a facilitating force and repositioning with a resultant release of soft tissue and articular dysfunctions. The positions which are taught during this program are the easiest for both the physician and the patient and require only a few seconds to complete. As a modality of osteopathic manipulation, it is an effective tool for use in a busy office or hospital practice.

Learning Objectives:

At the end of this session, participants should:

- Be able to discuss the mechanism of action of this technique
- Be able to treat hypertonic muscles using this technique
- Be able to treat somatic dysfunction in all regions of the spine and extremities with FPR

MYOFASCIAL RELEASE

FEBRUARY 11-13, 2000

FRIDAY: 1:00 - 5:00 PM;
SATURDAY: 8:00 AM - 5:00 PM;
AND SUNDAY: 8:00 AM - 12 NOON

JUDITH O'CONNELL, DO, FAAO,
PROGRAM CHAIR & INSTRUCTOR

Course Description

The approach utilizes combined procedures to release tightness and patterned restriction in soft tissues and joints. Both direct and indirect methods are used. Myofascial techniques may be used in a variety of joint and soft tissue dysfunctions. They are especially useful in chronic problems, and in patients who do not tolerate forceful maneuvers.

Learning Objectives:

- To be able to diagnosis dysfunction in the fascial system
- To be able to apply the principles of the bio-electric model
- To be able to identify and follow patterns of dysfunction

**For information regarding either
of these courses, please contact:
American Academy of Osteopathy by:**

Phone: (317) 879-1881;
Fax: (317) 879-0563;
E-mail: AAODLF@aol.com; or
Web Page: www.academyofosteopathy.org

A new challenge: Replacing opinion-based with evidence-based decisions

by Deborah M. Heath, DO and Albert F. Kelso, PhD

The world's medical community's efforts are focused on replacing opinion-based decisions with evidence-based decisions on health care delivery and management.¹ The Louisa Burns Osteopathic Research Committee's National Osteopathic Clinical Database Task Force, anticipates the need for evidence-based decisions.² Documenting the somatic signs, symptoms and decisions, and health outcomes during osteopathic evaluation and management of patients' health care provides a basis for evidence-based documentation. In the immediate future, other physicians and teams working with the AOA and AAO will provide directions for evidence-based osteopathic pre-doctoral, post-doctoral, and continuing education. Others will contribute to developing the professions' policies and management for health care delivery. Combining evidenced-based practice with professional and governmental evidence-based decisions as an integrated system is described for the English health care delivery system.³

Osteopathic medicine addresses a new and complex challenge when it joins the entire medical community in preparing for health care in the next millennium. Cost containment and realistic reimbursement is a stimulus for efforts by osteopathic clinicians, researchers, and medical educators to cope with the problems in managing patients in a labile health care system. Simultaneously, osteopathic professional organizations and managers of the health care system need to keep abreast of changing needs and to match resources and available knowledge with quality health care. Osteopathic efforts are well underway (See reports in our journals), but far behind a committee that began in 1980 to develop methods and information

for evidenced-based decisions in practice. (See the Preface in *Diagnostic Decisions*.)

The osteopathic profession should focus on the somatic component of health status (AFK), an issue unlikely to be addressed outside the osteopathic profession. The evidence-based clinical decision making for practicing physicians. *Making Medical Decisions*,⁴ provides general information rather than the thoroughly researched medical diagnoses in *Diagnostic Strategies*. Familiarity gained by using the medical decision reference is likely to replace the clinical clerk and interns' quick reference for learning how to practice in the clinic and hospital. "Old Timers" will find that math, chemistry, physics, and knowledge of genetics documents evidence-based diagnostic value of symptoms and signs instead of opinion-based evidence. Evidence-based practice described in *Making Medical Decisions* rather than a time consuming challenge is a valuable resource.

This short readable text by Gross provides the basic information needed in practice at two levels. Presentations at the beginning of chapters provide assistance and understanding without a great deal of emphasis on the statistical basis for making evidence-based decisions on a patient's evaluation, management and measuring health outcomes. An intermediate level of difficulty at the end of most chapters and the sequence for presentation allows any physician to use the introduction with the minimal depth presentation and feel comfortable with the detailed section or to skip on to the next topic without mastering technical details. The book, in 119 pages, presents material in the manner many DOs use in providing

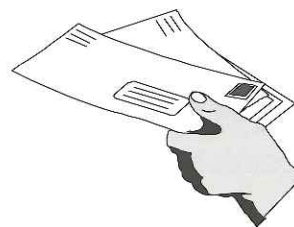
care for their patients. It prepares the busy physician with information to meet impending challenges and simultaneously adapt practice for a rigorous evaluation of their patients' quality health care in the next century. An additional reference provides resources for evidence-based practice of health care procedures supported by theory and practical experience.⁵

Current efforts within the osteopathic profession are being reported in the *JAAO* and *JAOA*. Interested physicians are needed to help with developing policy, procedures, and practice at the forefront of medicine. It is no simple task, making decisions on appropriate management of patient's health risks and problems, and diagnosing health status, major diseases, injuries, and response to stress. These decisions used in providing quality health care will require evidence from practice by individuals or teams in direct contact with patients. Medical educators and managers will need to include evidence-based decisions from practice in their health care programs as they match resources to patients, physicians, and public changes in health care needs.

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1. Diagnostic strategies: For common medical problems. 1999. American College of Physicians. Philadelphia.
2. Slezynski S, Glonek T and Kuchera M: Standardized medical record - A new outpatient osteopathic SOAP note form; Validation of a standardized office form against a physicians' progress notes. 1999. *JAOA* 99 (10):516ff.
3. Muir Gray JA: Evidence-based health care. 1997. Harcourt Brace and Company, Ltd.; London.
4. Gross RG, Making medical decisions: An approach to clinical decision making for practicing physicians: Philadelphia
5. Spencer JW, Jacobs JJ: Complimentary/alternative medicine: An evidence-based approach. 1999. Mosby, Inc, St. Louis

Letters to the Editor



Dear Editor:

It was with considerable interest that I read Dr. Scariati's Letter to the Editor, re: Osteopathy Unity, and the Message from the Editor, re: The Future of Osteopathic Medicine".

As an unbiased outside observer who cares only for the future of osteopathic medicine, I thought to share my perceptions regarding these matters.

Firstly, I must say it is refreshing to experience the embracement of such honesty because only through such a process can genuine change begin. Certainly change is necessary as many academy members have previously noted in "Finding the Pony" (Hruby Vol. 3, No.4). This familiar tune preaches a return to the roots of OMT as the core practice of osteopathic medicine but offers no real concrete suggestions on how it may be achieved.

I believe this malady to be traceable to California in the 60s. This loss damaged the profession more deeply than is generally recognized or even acknowledged by the general American osteopathic community. Indeed, this whole incident was only symptomatic of the deeper problem of the 'medicalization' of osteopathy and it was at this point that the appropriate remedy (pesticide and pruning) should have been administered. However, it was not done and the profession has continued to drift without a proper sense of identity from this time to the present day.

However, it is not too late for correction and, sometimes, to make progress you may have to go "backwards". If the parents have lost their way then the children may be needed to graft health branches back on the

ailing tree. Change must start from the ground up in osteopathic education – the roots of the osteopathic tree. The undergraduate system needs drastic change to bring more emphasis on the osteopathic components and less on the medicine.

At present osteopathic medicine is modeled on the allopathic system and must be changed to reflect a true 'separate and distinct' osteopathic system. Why is the allopathic system as the basis for the standards and practice of osteopathic medicine? How does this show osteopathic medicine to be a separate parallel and distinct system?

OMM must be returned as the integral part of every year and every component of undergraduate training. Every student should have to show through an examination process increasing skill and correct utilization in OPP and OMT in every year of their course. OMT should be the glue that binds osteopathic education together, not the optional extra icing on top of the cake. To have a system which allows students to graduate from college and then never again use their OMT skills afterwards is ludicrous. Why bother to teach it in the first place?

After graduation a compulsory residency of at least three years should be undertaken with hospital OMM departments or with private or family practices who have at least one FAAO or AOBNMM (formerly AOBSPOMM) certified physician to supervise this post graduate training.

This training will serve several purposes; chiefly for the new graduates who will learn to use OMM as front-line hands on care and experi-

ence to what extent OMM can alleviate and resolve real patient's health care needs. When they accomplish this they will totally change their perception of what osteopathic medicine is all about. They will also have the full backing of experienced physicians for guidance – when and if pharmacological support or surgical intervention is appropriate. This will be like an enforced dual residency in family medicine with special emphasis on primary OMM care.

This is what osteopathic practice is supposed to be today in theory but in reality this is very seldom the case. After this residency has been undertaken – then and only then – would progression to other specialties be allowed. At this point, I believe most physicians would continue to stay in family medicine primary OMM roles and only the genuinely interested or talented would seek a further specialization. This would go a long way to remedy the current imbalance from 10 percent OMM specialists and 90 percent pharmacologists/surgeons to the reverse ratio – thus restoring the profession to its roots and altering the public's perception of its identity. It will also have the added benefit of encouraging previously practicing physicians who have not bothered to seek AOBNMM certification to become certified so that they will be able to supervise the new graduates thereby increasing the profession's pool of AOBNMM certified physicians.

Identity works in two directions – within and without. This first is how a physician portrays him/herself to the public – hence the profession's internal drive for a definite identity.

The second is how the public perceives the physician. Both are a direct reflection of each other. How the physician perceives his/her role will determine their actions and manner of treatment. The way the patient is treated will determine both their reaction to their physician and his/her identification and hence their understanding of what osteopathic medicine can do for them. This is chiefly determined by what the physician does – not by the individual physician's own intellectual professional label description. The general public is not always ready to grasp the subtle differences in physician's philosophical persuasions but are far more convinced by concrete actions and achievements. Thus, with the suggested grassroots approach to OMM and family medicine the public's perception of osteopathic medicine will be greatly altered.

Paradoxically, the profession is ideally placed to carve out whatever role it wants for itself. There are relatively few legal considerations or constraints to stop the profession from adopting whatever educational standards and qualifications it desires from within. Indeed, the profession's tendency is to hamstring itself with its own tentative disbelief in itself. It lacks positive direction in aggressively marketing itself, even to the point of inviting court action if other professions attempt to restrict it in any way. This is the American way. If you want to be the dominant system of medicine you have to be prepared to fight for it.

In the real world of the corporate takeover it is conquered. The profession needs to acknowledge this and

develop definite long-term plan to swallow allopathic medicine (pun intended) – not the reverse i.e. to become proactive not reactive. By the adoption of this plan it will reveal to itself and the rest of the world that it truly believes itself to be the dominate system of medicine. Without the adoption of this audacious plan to profession will always be at risk of takeover by allopathic medicine. At the least this approach will lead to a mutually beneficial merger on equal footing.

Yours sincerely,
Peter Carter, DO, DHM, MAOA
Oxenford Qld

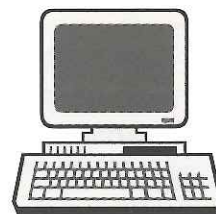
Dear Editor:

I read with interest your consideration of the question of osteopathic medicine without OMT. I, for years, have complained with no result to the AAO and AOA that most of my insurance carriers do not allow billing OMT with any other service. In fact, Blue Cross of Virginia, in their most recent revision, granted chiropractors the right to bill an evaluation and management code with the -25 modifier along with manipulation, but NOT a DO. So although you guys talk about it and I send you a bunch of bucks every year, none of you seem able to do anything more than talk. I have been unable to claim any E&M service even though I specifically have provided documentation of complete history and physical including pap and labs and prescriptions along with fixing up a neck problem. "Policies are policies and we cannot make an exception for you," is all I

get, along with my \$30 for an hours time. I really do not feel the AAO or AOA does me any good.

Harold Kornylak, DO
Virginia Beach, VA

[Editor's Note: The AAO's Executive Director, Steve Noone, forwarded Dr. Kornylak's comments to the American Osteopathic Association's Department of Payor Relations. AOA staff agreed to research this carrier's physician payment policy and discuss potential interventions with AOA physician advisors. They further agreed to contact Dr. Kornylak personally to determine whether the AOA could provide assistance in resolving his reimbursement problem with this carrier. In his address at the AAO's Annual Business Meeting in March 1999, AOA Executive Director, John Crosby, noted that the AOA has sent representatives to conduct face-to-face meetings with a major insurance carrier in Virginia to advocate for changes in physician payment policy adversely affecting that state's osteopathic physicians.]



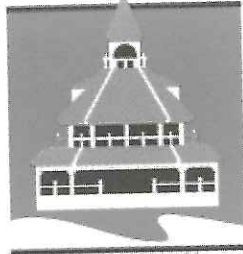
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"An Introduction to OMT"

(Basic High Velocity/Low Amplitude)

January 20 - 23, 2000

CME Hours:
23 Category 1A



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Resort & Spa**



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- Kids' Klub (ages 5-12)
- Free shuttle to Sanibel
- Free shuttle to outlet mall
- 1,000 ft. sandy beach

Program

Thursday, January 20, 2000

- 5:00 pm Registration Opens (incl. evening meal)
- 5:30 pm Introduction to Course
- 5:45 pm History/Philosophy of Osteopathy
- 7:30 pm Introduction to OMT
- 8:00 pm Osteopathic Terminology,
Palpatory Diagnostic
Parameters, Barrier Concept
- 8:45 pm Principles of HVLA Technique
- 9:15 pm SUMMARY
- 9:30 pm Adjourn

Friday, January 21, 2000

- 7:00 am Spinal Biomechanics
- 8:00 am Pelvis Diagnosis & Treatment
- 10:45 am Small Group Discussion
- 11:00 am Lumbar Spine Dx/Tx
- 1:30 pm Adjourn

Saturday, January 22, 2000

- 7:00 am Pathophysiologic Models
- 8:00 am Thorax Dx/Tx
- 10:30 am Small Group Discussion
- 10:45 am Cervical Spine Dx/Tx
- 1:30 pm Adjourn

Sunday, January 23, 2000

- 7:00 am Coding for Diagnosis/
Reimbursement
- 8:00 am Extremities Dx/Tx
- 10:30 am Small Group Discussion
- 10:45 am Complications & Contraindications
- 11:30 am Complete Treatment Approach
- 12:30 pm Summary
- 1:00 pm Adjourn

Faculty:

Boyd R. Buser, DO, Program Chairperson
Mark S. Cantieri, DO, FAAO, AAO President

Suggested Dress:

Loose fitting sports attire, jogging attire, etc.

REGISTRATION FORM

Intro to OMT/HVLA, January 20-23, 2000

Full Name _____

First Name for Badge _____

Street Address _____

City _____ State _____ Zip _____

Daytime phone # _____ Fax _____

AOA # _____ College/Yr Graduated _____

I require a vegetarian meal

REGISTRATION RATES

	BEFORE 12/20/00	AFTER 12/20/00
AAO Member	\$575	\$675
Intern/Resident/Student	\$275	\$375
AAO Non-Member	\$675	\$775

AAO accepts Visa or Mastercard

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Appearance of Edema

Excerpt from *Philosophy of Osteopathy*, pages 198-202

Edema is the one word that appears to be at the first showing of life and death in animal forms.

Previous to death by general swelling of system, a watery swelling of fascia and lymphatics, even to those of nerve fibers. If a disease should destroy life by withholding all fluids, we can trace such cause in the beginning to a time when there was watery swelling of the centers of nerves of nutrition, to such amount as to cut off nerve supply until sensation ceased to renovate and keep off accumulating fluids so long that fermentation did the work of heating till all fluids had dried up, and the channels of supply closed by adhesive inflammation, and death follows by the law of general atrophy.

Do all diseases have beginning in edema?

To assert that all diseases have their beginning in edema may be wide in range, but we often find one principle to rule over much territory. "Instance:" Mind is the supreme ruler of all beings, from the mites of life to the monsters of the land and sea. Thus we see a ruling principle is without limit. The same of numbers. By heat all metals melt to fluidity; acids must have oxygen to begin as solvents in most metals. We only speak imperfectly of some common laws to prepare the student to think on the line of probabilities as I hold them out for consideration. Suppose we begin at the atoms of fluids such as enter to construct animal or vegetable forms, and pen up till decomposition begins.

By such delay does not nature call a halt and refuse to obey the laws of construction and let all other supplies pile up even to death? Is not all this the result of edema? Edema surely begins with the first tardy atom of matter.

Pneumonia begins by its edematous accumulations of dead atoms, even to the death of the whole body, all having found a start in atoms only.

Questions for the osteopath

We will close this chapter by propounding a few questions which the osteopath should keep in mind.

Are the human and animal forms complete as working machines?

Has nature furnished man with powers to make his bones; give them the needed shapes of durable material, strong in kind?

Does a section in nature's law provide fastenings to hold these to one another?

Then another question arises: How will this body move, and where and how is the force applied?

Where and how is this force obtained?

How is it generated and supplied to these parts of motion?

What makes these muscles, ligaments, nerves, veins, arteries?

Are they self-forming, or has nature prepared machinery to make them?

Does animal life contain knowledge and force to construct all of the parts of man?

Can it run the machine after it has finished it?

By what power does it move?

Is there a blood vessel running to all parts of this body to supply all these demands?

If it has a battery of force, where is it?

What does it use for force?

Is it electricity? If so how does it collect and use this substance?

How does it convey its powers to any or all places?

How does the man keep warm without fire?

How does he build and lose flesh all the time?

Where and how is the supply made and delivered to proper places?

How is it applied and what holds it to its place when adjusted?

What makes it build the house of life?

Do demand and supply govern the work? If not, what does?

Are the laws of animal life sufficient to do all this work of building and repairing wastes and keep it in running condition?

If it does, what can man do or suggest to help it?

Is this machine capable of being run fast or slow if need be?

Does man have in him some kind of chemical laboratory that can turn out such products as he needs to fill all his physical demands?

If by heat, exercise, or any other cause he gets warm, can that chemistry cool him to normal?

If too cold can it warm him? Can it adjust him to heat and cold?

If so, how is it done? Is the law of life and longevity fully vindicated in man's make up? □

Case Study:

OMT and diffuse musculoskeletal complaints following a motor vehicle accident.

by Todd A. Bezilla, DO, MEd, CSCS

Patient Identification:

C.A. is a 21-year-old Caucasian female 6 months status post motor vehicle accident (MVA).

Chief Complaints:

Cervical, thoracic, lumbar pain, constant fatigue, and tingling in her left hand.

History of Chief Complaint:

She was involved in a rear-end MVA 6 months prior. She was a restrained passenger and experienced two extension impacts of her occiput on the headrest of the seat. She did not lose consciousness nor impacted any other area of her body to the best of her recollection. She was given a diagnosis of whiplash and strain/sprain of her cervical, thoracic, and lumbar regions by her primary physician. X-rays were obtained at the time of the accident and interpreted as unremarkable. She participated in 10 weeks of intensive physical therapy and received OMT by her primary physician following the accident. However, these measures were unsuccessful at alleviating the continuous discomfort of her neck, upper and lower back. She noted tingling sensations in her left and right hands after she increasingly used her

hands and arms at work (gym/fitness center) 4 months after the MVA. Her right hand spontaneously improved but the left hand tingling had persisted to the present. She noted increasing and constant fatigue since the MVA which she had tried to ignore.

Past Medical and Surgical History:

Her history revealed mitral valve prolapse, a childhood with multiple surgical procedures for craniofacial abnormalities, tonsillectomy at age 7, wisdom teeth extraction X 3 at age 18, and mandibular and maxillary realignment surgery at the age of 19. She also noted a history of left olecranon dislocation at age 5, fracture of her left distal radius at age 7, and a greenstick fracture of her right distal radius at age 12.

Social History:

She is a single college student in an exercise physiology program. She has strong family support. She had been and still wishes to be a competitive athlete/fitness enthusiast. She denied tobacco, alcohol, drug, and caffeine use.

Allergies:

Penicillin

Medicines:

ISAIDs prn with no significant relief

Physical Exam:

Height: 5'4". Weight: 128 lbs. B.P.: 120/70 Pulse: 65 Respirations: 16 Oral

Temperature: 98.4 degrees F. Pain: (0-10 scale): 7

HEENT: Relatively normal exam except for some residual superficial scars from prior facial surgeries.

Heart: Regular rhythm (-)S4, (+)S1, (+)SEM ii/vi, (+)S2, (-)S3

Lungs: Clear to auscultation

Abdomen: (+) bowel sounds, no bruits, soft and non-tender with no palpable masses

Extremities: (+) pulses, and slight non-pitting edema left hand

Neurologic: Deep Tendon Reflexes 2/4 bilaterally symmetric, Cranial nerves 1-12 intact with no gross deficits, (+) Phalen and Tinel signs left wrist with median nerve distribution into left hand, (-) Adson's test bilaterally, (-) Babinski

Osteopathic Structural Exam: Examination revealed a level sacrum with a scoliosis convex right lumbar (RrSI) and convex left (RISr) thoracic with shoulder unleveling-right side declination. She had poor quality and amplitude of her cranial rhythmic impulse with a significant spher-

nobasilar compression and a rate of 6-7 cycles per minute. She had reduced thoracic inlet/outlet motion on her left. Additionally, tenderness, tissue texture changes and decreased active and passive motion were present throughout her axial skeletal regions including her sacral, lumbar, thoracic, costal, and cervical regions. Her hamstring and iliopsoas muscles were restricted bilaterally with decreased passive and active hip flexion and extension, respectively.

Initial Assessment:

1. Status post motor vehicle accident 6 months with chronic strain/sprain to cervical, thoracic, lumbar regions
2. Cranial, cervical, thoracic, costal, lumbar, sacral, hip, lower extremity, and left upper extremity somatic dysfunctions secondary to #1 and #5
3. Carpal tunnel syndrome-left secondary to #1 and #2
4. Chronic fatigue secondary to #1 and #2
5. Scoliosis-congenital
6. Mitral valve prolapse-congenital

Treatment Plan

After my initial evaluation, I discussed the findings and their possible implications with the patient. I explained that significant results should be obtained within three to five treatments if my findings were indeed accurate. We discussed the importance of her being an active participant in her treatment and recovery. She was very motivated and understood the treatment rationale and importance of the total treatment plan.

The initial treatment plan included OMT using osteopathy in the cranial field, soft tissue and myofascial release, muscle energy, and low velocity high amplitude maneuvers to increase motion and normalize somatic dysfunctions. The patient was taught specific carpal tunnel stretches to lengthen the flexor retinaculum and

thus open the carpal tunnel which were to be performed several times daily. Total body full-range-of-motion exercises were also taught and recommended to be performed daily. I also taught the patient abdominal breathing exercises to facilitate relaxation, decrease thoracic accessory muscle activation and promote balance of the autonomic nervous system.

Nutritional supplements were utilized as well. B-complex vitamins, including a form of Vitamin-B12 (Methylcobalamin 5mg sublingually QD) were recommended for improving nerve inflammation and repair and Siberian Ginseng 200 - 400 mg PO QD to assist in stress tolerance and alleviate fatigue. She was to return for evaluation and treatment in 1 week.

Course of Treatment

The patient required a total of 5 treatments spanning 10 weeks for complete recovery from her injuries and symptoms. The first 2 treatments following the initial evaluation and treatment were each spaced 1 week apart. The next treatment was spaced at 2 weeks, and the final treatment was 6 weeks later.

After the first 3 treatments (3 weeks after initial evaluation), she no longer had any symptoms of carpal tunnel syndrome, her cranial speno-basilar compression had resolved and she had been without chronic pain or serious muscle spasm. She still had a scoliosis which had actually improved somewhat regarding the amount of curvature and muscle imbalance. She still had somatic dysfunction in her cervical and upper thoracic regions. She had been performing her daily exercises and following the vitamin-B and Siberian Ginseng recommendations.

After the fourth and fifth/final treatments, other than some minor chronically recurrent somatic dysfunctions in her thoracic, cervical, and left upper extremity regions related

to her scoliosis, she was fully recovered from her MVA injuries. She discontinued the high dose B-complex regimen as well as the ginseng. She reported she was back to her pre-injury exercise regimen, doing well in school, and looking forward to her summer sporting activities.

Discussion

The soft tissue injuries and fatigue caused by the accident most likely persisted despite early intervention with physical therapy and OMT due to missing important "pieces of the puzzle".

The most significant finding in my opinion was the speno-basilar compression, which I believed was induced when her head struck the car's head-rest in the accident. I believe it was the cranial dysfunction that ultimately had thwarted the patient's healing process. The widespread effects of a severe compression due to its direct effects on the pituitary gland and alterations in the flow of CSF and the subsequent changes in hormonal balance, neuronal nutrition, and metabolism could significantly alter the patient's homeostatic state resulting in fatigue, autonomic imbalance, mood changes, and heightened perception of pain and discomfort. Once the cranial dysfunction was removed the patient's recovery accelerated remarkably.

The carpal tunnel symptoms were more related to fascial and muscular restriction in the thoracic inlet/outlet regions rather than dysfunction at the carpal tunnel itself. The scoliosis had the patient predisposed to this type of problem in the first place. The accident simply increased already present strain patterns causing a relative decompensation. When these changes were combined with the patient's increased work load in a fitness center, she developed a fluid drainage problem in her arms with her left worse

→

than right which produced carpal tunnel symptoms, even though her carpal tunnel probably was not anatomically narrowed. This was alleviated by improving motion and tissue balance at the thoracic inlet/outlet.

Whole body full-range-of-motion exercises were emphasized to promote recovery of normal motion, increase circulation, and induce biochemical changes to support the healing process. Breathing exercises were taught and used to promote relaxation and autonomic balance since sympathetic activity predominates in stressful, painful situations. Also, deep diaphragmatic breathing has a function enhancing effect on the viscera which when combined with removal of the somatic dysfunctions, hastens recovery. Finally, nutritional supplements were utilized by using high-dose B-complex vitamins and siberian ginseng to potentiate the overall healing process and support the patient's increased level of stress.

I believe this case demonstrates the potential of applying osteopathic principles and practices. The patient was treated using many different modalities including manipulation, exercise, mind-body technique, and nutrition. The importance of patient involvement can not be overemphasized as the majority of the treatment process relied upon the patient's compliance with my proposed treatment plan. □

Letter to A.T. Still

Dear Doctor Still,

What is life? Needless to say, this is a question that has been pondered by many a great thinker, yourself included. You seemed to indicate in your writings that life was something when combined with matter formed the living being. In your book, *Philosophy of Osteopathy* (pp. 195-197) you said:

"If we inspect man as a machine, we find a complete building, a machine that courts inspection and criticism. It demands a full exploration of all its parts with their uses. Then the mind is asked to see and find the connection between the physical and the spiritual. By nature you can reason on the roads, that the powers of life are arranged to suit its system of motion.

If life is an individualized personage, as we might express that mysterious something, and it must have definite arrangements by which it can be united and act with matter; then we are admonished to acquaint ourselves with the arrangements of those natural connections, the one or many, as they are connected to all parts of the completed being."

So if life was to be maintained and maximized, the osteopathic physician needs to understand the machinery (the body) within which life is contained. The body has to be kept in good running condition, like any machine, in order for it to function well. The osteopathic physician has to make a life-long study of the human body in order to be able to recognize normal structure from abnormal structure. In this same book, you told us this when you said: "The osteopath finds here the field in which he can dwell forever. His duties as a philosopher admonish him, that life and matter can be united, and that union cannot continue with any hindrance to the free and absolute motion."

As we continue our studies, and get to know your work in more depth, may we all understand these principles as clearly as you did. As you said, "Here is your duty; do it well, if you wish to succeed."

Your ongoing student,
Raymond J. Hruba, DO, FAAO
Professor and Chair, Department of OMM
Western University,
College of Osteopathic Medicine of the
Pacific



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Thomas L. Northup Lecture
AOA Convention, October 1999

Accepting the death of osteopathy: A new beginning

by James S. Jealous, DO

My commentary on accepting the death of osteopathy, is a difficult topic to follow, unless you have lived in the daily practice of traditional osteopathy. Traditional osteopathy is a term I use that means one is in a family practice setting, treating all types and ages of people with all types of diseases, using the perceptual skills of osteopathy. It means using one's hands as a primary therapeutic tool to find the *health* and *therapeutic process* in the patient. Traditional practice is living the precepts of osteopathy in oneself. It is the striving to learn from nature the laws of healing. It is the augmentation of an innate healing power within the patient. It is an act of devotion to a specific body of knowledge that is clinically safe, effective and guided by reason perched upon the Mystery of the Divine.

My relationship with osteopathy has been the central axis of my professional and spiritual life. It is a limitless and beautiful truth. This lecture focuses upon accepting the death of osteopathy as an individual. It is not about the action to be taken by committees, groups, or institutions; it is about oneself, one's relationship to osteopathy, and deepening one's personal insight and sense of direction. It is a topic I have lived and have found very healing. Accepting the death of osteopathy opens the way to a newfound inspiration, which replaces an old pattern of grief.

We all have lived in despair most

of our professional lives, watching osteopathy be defiled, degraded, forgotten and turned more and more into

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an allopathic clone. My goal today is not to degrade but to state the facts that we all know are true. I am not speaking out of anger but out of love for the true spirit of osteopathy. I am also speaking out of a desire to see it living again in its fullness.

Osteopathy has died, what remains is only an empty skeleton of the dynamic gift we were once given. The essence of osteopathy is gone extinguished. Today we are relating to a ghost, co-dependently and neurotically fixated upon imitating allopathic medicine. Many believe this illusion to be an evolution for the profession. It is not evolution it is cloning. It is completely irresponsible to the suffering individuals in this world to reduce their options for healing; osteopathy is an alternative method of practicing medicine. A MD who saw

the necessity for a safer, more effective, more wholistic profession founded it. Osteopathy was a gift to humanity. It was help. We have allowed ourselves to fail in our responsibilities to our fellow man.

My argument is not against allopathic methods, but for the richness of osteopathy. Osteopathy is gone; it has died. Today many will point to osteopathic manipulative medicine (OMM) as osteopathy. However useful OMM is, it is not osteopathy! Osteopathic practice is for the treatment of all diseases, not just somatic dysfunction of the neuromusculoskeletal systems. OMM and the AAO are, in fact, the only campfires still burning upon the vigilant plains of waiting; waiting for a change that will free osteopathy and allow it to resurrect itself and serve humanity. Our schools do not teach osteopathy as a primary education. Many are ashamed of traditional principles. The few students who really want osteopathy (and who do not lie on their applications) spend their free time trying to find osteopathy, but it is gone. The majority of students ridicule these few for being osteopaths. Many faculty and professors trivialize their interest in osteopathy. The school administrations generally lack social integrity, because they do not understand they are not giving the general public the gift of osteopathy. The schools are teaching allopathic medi-

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cine. We do not need more allopathic doctors; we need the alternative of osteopathy. We owe it to humanity to be osteopaths, but who remembers how to do a full practice using osteopathic principles? Are there any teachers who remember the whole sense of living osteopathy? If I say osteopathy has died, perhaps I should define the character of osteopathy as I have learned it and perceived it in thirty years of practicing traditional osteopathy.

First, osteopathy is an alternative to orthodox medicine. This truth should be obvious, if is not, it died. Osteopathy is about finding the "health" in the patient. This is a direct perceptual skill; it is not just the idea of making the person healthy. Finding the health in the patient is the learned art of directly perceiving something other than disease in the patient, a skill that therapeutically engages laws of healing not recognized by orthodox medicine. The gift of this wisdom is all but forgotten. It was part of the lifeblood of osteopathy and part of a challenge to us to be a truly unique profession. Secondly, osteopathy awoke us to the role of the autonomic nervous system (ANS) in health and disease. This tremendous insight was profound. As science has matured, it has noticed the relationship of stress to disease. Today most Americans are aware of the role of stress in upsetting the balance of health. Osteopathy, however, was way ahead of even today's common medical knowledge. It had the skill to directly interpret and influence autonomic activity using perceptual and palpatory skills. The level of awareness that can be developed in this regard is much greater than any scientific instrument. The capacity to sense, interpret, and interface with autonomic nervous system control and influence cellular trophicity with a clear awareness of specific changes is lost, it is gone from our teachings and the skill has died. How many

patients coming into a family practice setting in the 1990s have diseases or symptoms that are the result of sympathetic overload? Perhaps 80 percent or more of disease is directly traceable to ANS imbalance. Where are the insights and tools to treat this epidemic? Drugs do not cure cause. We have failed in our responsibility to humanity by letting this truth die. Today we worship only the ashes; the living osteopathy is gone.

Osteopathy is about finding the "health" in the patient. This is a direct perceptual skill; it is not just the idea of making the person healthy. Finding the health in the patient is the learned art of directly perceiving something other than disease in the patient, a skill that therapeutically engages laws of healing not recognized by orthodox medicine.

Thirdly, osteopathy when alive taught us to have a sense of the whole patient, not by engaging the parts but by a direct sense of the whole. The whole is the least division of life. Are these just words, medical poetry, or has something been lost?

Osteopathy is a relationship between man, nature, and the Divine. Osteopathy professed a relationship with nature and God that had meaning. Osteopathy did not see nature as a child of science. It saw nature as a reflection of the great and loving wisdom of the creator. This truth was not a religious cult, it was a fact of common sense. Man is not the creator of life, nor is he as smart as he would like to believe. This perspective that man, nature, and God are in a direct

relationship creates a sense of balance in the physician's degree of self-importance. Osteopathy by its very nature could mold the ego into a position of compassion; compassion being not empathy but the capacity to see the divine in one's patients. This principle places osteopathic thinking and practice in an unorthodox position.

In order to be brief, I will explore only one more principle of practice and that is that osteopathy prevents disease. Understanding and helping the ANS to balance plays an important role in interrupting the momentum of involutory patterns of living. Understanding diet, exercise, perception and the ANS are incredibly powerful tools in preventive medicine.

Realizing osteopathy has died brings us as individuals to a point of fact where we must reconcile this loss. Dr. Elisabeth Kubler-Ross, an outstanding clinical researcher and practitioner, has written extensively on the subject of death and dying.¹ Her research reveals that in order to accept death one passes through several stages that finally lead to a completely new relationship with living. As osteopathic physicians, who have realized that osteopathy is dead, we have several choices. More importantly, we need to find freedom from the constant frustration that we face when realizing the fact that osteopathy cannot return and serve humanity unless there is a new beginning. A new beginning requires insight. It requires that we be free from our grief and accept death. This is not a morbid thought. It is a direction that perhaps will open us to new possibilities. Let us take a brief look at Dr. Ross' stages of acceptance and see what we can begin to understand.

The first stage is anger

One is angry at the facts. One is angry that one cannot control life. One yells. One is irritable. One lives on the edge of neuroses. We see this

in ourselves as osteopaths. We see this anger in our communities, our teachers, our schools, and our students. As we feel the loss of osteopathy, individual egos fly into over load, and the community yells out, "give us more osteopathy"! The war rages between knowing and loss. One is at war against the unresolved. The pain of the facts remain hidden in the turmoil of trying to escape the loss.

Stage of denial

One says to oneself or to others, "No, No, it is not true, osteopathy is alive, it is not dead, I will fight for it. I will change the profession. Osteopathy cannot die, I will not let it, and it lives. I have seen it. . ." One senses the remaining life. One finds a part of oneself not yet embraced by death. One has false hope for changing the fact but one lives with the reality of death. Denial is a heavy load. One begins to bend.

"One cannot accept not having a cure". For a physician this is a difficult truth.

Stage of bargaining

I find this stage the most interesting because the urge to survive overrides the essence of the individual. Bargaining is a form of begging. One asks the school for more time; less is ultimately given. The disease is accelerating; the patient is losing ground, they beg. I will do anything, I will change, I will act like a MD, and I will compromise myself. Please do not let this death happen. But it has happened. We worship the memory of another time, another day, when osteopathy lived through the heroic efforts of individual DOs. Osteopathy has expired. There is no one to blame; there is no cause to be defined. Bargaining is only a symptom of the unaccepted, unrealized awareness that the unique gift of osteopathy to humanity has been hopelessly lost. The bargaining continues but one

becomes aware that nothing is gained. This leads to the next stage in the journey of accepting death.

Stage of depression

In the stage of depression one is apathetic, withdrawn, and gives up hoping. One has found no peace in compromise. Many DOs are apathetic and have lost interest in supporting the efforts of the AAO or other osteopathic groups. They have seen the futility of efforts to resuscitate osteopathy. They live in isolation from their profession not because they do not practice osteopathy, but because they are unable to support the illusion that osteopathy is alive. I do not agree with this form of relationship, but I can sympathize with the integrity with which they meet this very serious and difficult question. Depression is the last stage. It is the bottom of the abyss and it is in this emptiness feeling that one has nothing left. In our individual practices we have all seen terminally ill patients who struggle, agonize, and finally accept the fact of death. But, we have also seen something quite dramatic something quite beautiful that occurs when the patient accepts the loss and accepts the unknown. It is in this acceptance that one gains access to an entirely new world; a world that is full of freedom, continuity, and the expression of love. Our dying patients have taught us the greatest lesson of living, resolution, and problem solving. They have taught us that beyond all the chaos, fear, denial, bargaining, and apathy; there is another reality. It is from this reality that osteopathy was given to Dr. Still. It was a gift to mankind. An alternative method of healing. We can not find it living in the places where we look, but it's spirit is alive. Perhaps waiting for a new opportunity to come into the world and help mankind. The answer to this question can only be encountered by those who have accepted the

death of osteopathy, for those who have truly faced the loss, who truly have found the living spirit of osteopathy. This living spirit can speak only to individual hearts and only to a mind that is peaceful. A mind that is free from fear, free to listen, and free to follow the truths of traditional osteopathy. These questions must be pondered very deeply and without motive. One perhaps only needs to remember that osteopathy came to help and to serve mankind. Let us pray that it comes into a new life.

I would like to end my commentary by reading you a story, an old story, reported by the author Laurens Van der Post in a small pamphlet entitled, *Patterns of Renewal*. It was a story told to him by his nanny as he grew up in South Africa. I will give my own paraphrase of this meaningful tale. The story begins like this:

Once in the days of the early race, there was a man who captured a superb herd of cattle. The cattle were magnificently stippled black and white and he loved them very much. Every day he took the cattle out to graze and brought them home in the evenings. He put them in his thorn shelter each evening and milked them in the morning. One morning, he found that they had already been milked. Their udders, which had been sleek the night before, were wrinkled and dry. He thought, "Well, this is very extraordinary. I couldn't have looked after them very well yesterday." Therefore, that day he took them to better grazing. But again, the next morning, he found that they had been milked. That night, bringing them back after a good feed, he sat up to watch. About midnight, he saw a cord come down from the stars. Down this cord, hand over hand, came young women from the stars. He saw them with large buckets and baskets creeping into the shelter and milking his cattle. He took up his stick and he ran for them. Immediately they

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scattered and ran for the cord. The young women went up as fast as they could. However, he managed to catch one of them by the leg and pull her back. She was the loveliest of them all, so he married her. Their life would have been happy but for one thing. She had with her a tightly woven basket with a lid that fit tightly into its neck. She said to him, "There is only one thing I ask of you and that is, you will never look into this basket without my permission." He promised. Every day she went out to cultivate the fields as women did in those days and he went to look after the cattle and to hunt. This went on for some months, but gradually the sight of this basket in the corner began to really annoy him. One day, coming back for a drink of water in the middle of the day, when his wife was away in the fields, he saw the basket standing there and he said, "Well, really, this is too much. I am going to have a look into the basket." He pulled up the lid of the basket, looked inside, and began to laugh. In the evening, his wife came back and with one look at him she knew what had happened. She said, "You have looked in the basket didn't you." He said, "Yes, I have," and then added, "You silly, silly woman. The basket is empty." She said, "you saw nothing in the basket?" He replied, "no, nothing." Thereupon looking very sad, she turned her back on him and vanished into the sunset. The old nurse telling the story then said to the child listening, "you know, it did not matter so much his breaking his promise not to look in the basket. What was so awful was that looking in the basket he saw nothing in it."

1. Elisabeth Kubler-Ross. *The Wheel of Life*. pg 277; paragraph 1
2. Laurens Van der Post. *Patterns of Renewal*. Pendle Hill Pamphlet; Number 121:pgs 4-5□

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Osteopathic treatment of asthma: A literature review and call for research

by Kelly M. Jackson, PhD, Associate Professor of Microbiology and Immunology and
Karen M. Steele, DO, FAAO, Director of Osteopathic Principles and Practices, Professor of
Clinical Sciences, West Virginia School of Osteopathic Medicine

Bronchial asthma is a chronic inflammatory disease of the airways which causes recurrent episodes of wheezing, cough, chest tightness, and breathlessness. This complex disorder restricts activity, causes absence from work and school, and can be fatal.¹ In spite of many advances in the pharmacologic treatment of asthma symptoms, both the incidence and severity of asthma appear to be increasing worldwide.²

Comprehensive guidelines are available from the National Institutes of Health for the medical management of asthma patients.³ Emphasis is on the use of antiinflammatory agents, such as corticosteroids, for long-term control, and the use of beta-agonists for relief of acute symptoms. However, there are concerns about potential harmful effects from the protracted use of corticosteroids.⁴⁻⁶ There may also be significant negative effects from the long-term use of inhaled beta-agonists.⁷⁻⁸ Given asthma's prevalence, severity, and the potential side-effects of current medications, non-pharmacologic therapies should be vigorously investigated.

A number of case studies and published anecdotes suggest that osteopathic manipulative treatment (OMT) is effective for patients with asthma.⁹ However, few controlled research studies on the efficacy of these methods have been done, leaving a potentially beneficial mode of therapy largely unexplored. In light of this

deficit, this review of asthma treatment, through the lens of osteopathy was compiled as a starting point for further research. This review assembles the ideas, research data, anecdotal accounts, and case studies from osteopathic physicians that show positive results when using OMT to treat asthma. Standing alone, each article provides little validity to claims of efficacy, but taken together these articles suggest a positive clinical effect and the need for further study. This review does not endorse any particular technique or approach, but rather serves as a call for well-controlled objective research into OMT that may be beneficial to patients for relief, control of disease, or perhaps reduction in the amount of pharmacologic agents needed.

Asthma pathogenesis

Today, much is known about the pathogenesis of asthma. In order to understand the rationale behind many of the osteopathic manipulative treatments, it is necessary to first review the current understanding of this disease process.

Asthma has several major components: airway inflammation, bronchial smooth muscle contraction, increased mucus production, and bronchial hyperresponsiveness to a variety of stimuli. In acute asthma, the airway lumen contains inflammatory cells, desquamated epithelial cells, thick mucus, and several inflamma-

tory mediators like histamine, tryptase, prostaglandins, and IgE antibody.^{10,11} The airway edema and contraction of smooth muscles surrounding the bronchi occlude the lumen of the airways, making airflow more difficult. A number of allergic and non-allergic stimuli, including environmental allergens, viral infections, tobacco smoke, cold air, airborne chemicals, and many others, can trigger this hyperresponse.

Tone of bronchial smooth muscle and hyperirritability in the airways may be influenced by neural mechanisms.¹¹ The level of parasympathetic input from the vagus nerve may be critical. One theory proposes that alteration in the autonomic nervous system and immunochemical events result in the release of inflammatory mediators, initiating the airway disturbances in asthmatics.¹¹ Neuropeptides may be directly pro-inflammatory.¹²

Osteopathic manipulative treatment of asthma

At the beginning of the twentieth century, the knowledge and treatment of asthma in allopathic medicine was considered very inadequate by many. One DO wrote, "...it is necessary to leave the old and oft-trodden path of the older schools and look to newer fields of observation. A new system with new thought cannot expect to find much of real value among the rubbish and ruins of those who have

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failed in their search for truth."¹³ This failure of conventional medicine prompted osteopathic physicians to develop the use of manipulation of the spine and other body areas.

Spinal manipulation

A. T. Still wrote in 1910, "I have had a number of cases [asthma] which the medical doctors had sent to the mountains, but without avail; others who had been smoked with jimson weed and dosed with various preparations and who were then declared hopeless . . . I treated them after this method [OMT], and they are now enjoying freedom from asthma . . ."¹⁴

Harry Forbes, DO, in a lecture before the American Osteopathic Association in Kirksville, Missouri, stressed the need for preventive measures for asthmatics.¹⁵ He said, "To prevent, preserves the unsoiled linen: remedial treatment in its fullest development cannot restore the original whiteness." Forbes emphasized lesions of the thorax and spine and the removal of all lesions to treat the disease.

A common theme to many of these early osteopathic references is the importance of autonomic nervous input to the organs and tissues of respiration. George Laughlin, DO emphasized this relationship in his description of a female colleague with asthma.¹⁶ He contended that bony lesions of the spine and ribs caused poorly nourished or obstructed nerve cells, leading to respiratory problems, and went on to describe several commonly found lesions. In that same journal issue, F. E. Moore, DO briefly described treatments for the primary lesions found in the 1st to 6th dorsal vertebrae and ribs.¹⁷ These lesions were thought to affect the autonomic supply to the bronchi and surrounding tissues. According to Moore, "many asthma patients can be cured, a very large percent relieved, but a careful study of each case is essential, as no two cases are found alike."

In 1912 Louisa Burns, DO re-

ported on 21 cases of asthma treated at the Pacific College of Osteopathy.¹⁸ The patients ranged in age from 35 to 63 years, with various "etiological factors" to account for their asthma. Treatment included OMT to correct various lesions, breathing exercises, controlled diet, and avoidance of irritating gases or dust. Nineteen percent made a good recovery with no return of their asthma symptoms.

Articles published in 1917 and 1918 described a method to stop an acute asthma attack.^{19,20} "Relief is obtained immediately by inhibition of the pneumogastric nerve in front of the transverse process of the atlas." This author emphasized the need for proper pressure on the nerve, writing that "The moment that pressure is produced the patient will take a deep breath or give a sigh of relief and will start at once to breath normally."

In the early 1920s, the Massachusetts Medical Society was interested in the efficacy of manipulative therapy and asked Perrin T. Wilson, DO to participate in a study of patients with intractable asthma.²¹ Wilson was assigned 20 patients who had failed to respond to the treatments of the day (streptococcal vaccine, autogenous vaccines from the patient's sputum, injections of adrenaline, and asthma powders) and one additional patient in emergent need. Examinations revealed one consistent tender point between the 4th and 5th thoracic vertebrae on the right side of the spine. His osteopathic treatment was confined to this one area for about 5 minutes each session, weekly for some period of time. Reported results are summarized as follows:

Number of patients: 21
Number cured (%): 5 (23)
Number cured or with some relief (%): 13 (62)
Number Unchanged (%): 4 (19)

This study was noteworthy for two reasons. Osteopathic treatment focused on one area for each of these patients, who all had asthma for a number of years, and the majority

received some relief from symptoms. Secondly, the article stated that the shortest successful treatment time was for 7 weeks, and the longest was 18 months. This would suggest that any contemporary study should incorporate a lengthy treatment period to maximize the chance of seeing positive results.

Dr. Wilson published at least two additional descriptions of his complete asthma treatments.^{22,23} In the latter reference, Wilson's expanded treatment regimen included cranial flexion and practical self-help suggestions for the patient. Dr. Wilson suggested long-term treatment — once a week for 1 or 2 years — in order to achieve the success.

In 1957, Koch described 20 asthma cases that were evaluated over an eight year period.²⁴ The basic treatment procedure was cervical and thoracic spinal and rib mobilization, with attention to individual accessory factors, such as infections, allergies, diet, obesity, nutrition, and foci of reflex activity. Each of these "accessory" factors was treated by non-pharmacological and nonsurgical methods. In summary Koch wrote, "All the patients treated, as well as myself, were convinced by clinical results that the incidence of spinal strain may be considered a key factor in the asthmatic process."

A descriptive but non-experimental publication by Kline viewed the initiation of asthma as a consequence of vagal stimulation, leading to a host of physiologic changes including hypoglycemia and subclinical hypofunctioning of the adrenal glands.²⁵ According to Kline, the parasympathetic nervous system would eventually become dominant resulting in bronchiolar arterial dilation, edema and decreased bronchiolar lumen diameter. He described consistent lesions in the 2nd to 4th thoracic vertebrae, elevated fourth rib, and the 3rd cervical vertebra with rotation to the left. Treatment included a number of manipulative corrections and the cautious use of lymphatic pump. Perhaps most significant about this paper was

Kline's recommendation to treat the rib cage, diaphragm, and pelvic diaphragm between acute attacks. His caution against the over use of corticosteroids, "The corticosteroids should be used only as an emergency measure. To use them in any other manner is 'whipping a tired horse' and further depression of the adrenal glands will occur."

A controlled study was conducted in the 1960s by Allen and Pence to assess the effect of thoracic pump on lung function in patients with various diseases of the lower respiratory tract.²⁶ The 16 patients in the study suffered from pneumonia, bronchitis, emphysema, bronchial asthma, or bronchiectasis. The number of patients with each disease was not reported. Investigators randomly selected and treated 6 patients with thoracic lymphatic pump for 5 minutes, 3 times per day for 4 to 5 days. Both OMT treatment and control patients received standard pharmacologic treatment for their particular disease. Vital capacity (VC) was measured on admission, and again 5 days later. Increased VC was seen in 6 out of 10 control subjects with a decreased VC in 3. In the OMT group 5 of 6 subjects showed improved VC. The 6th was unchanged. Unfortunately, the sample size was quite small in this study, and there was no attempt to define individual variation of VC measurements, nor to define a significant change in VC. The authors reported observing significant amounts of sputum produced and the disappearance of coughing and rales in the treated group. The control group tended to produce less sputum and their cough lasted for a longer period.

In 1970, there were two published articles which described plans to investigate the efficacy of osteopathic manipulative treatment (OMT) on patients with chronic obstructive lung disease.^{27,28} No data appeared from the first study and the second proposed study by Kappler resulted in a

publication that examined the effect of OMT in the management of 17 patients with chronic obstructive lung disease.²⁹ Although the authors reported a trend toward improvement, there was no control group and patients with asthma were specifically excluded from this study.

Articles by Rowane and Rowane provide concise descriptions of asthma pathogenesis and the osteopathic treatments used in their clinical practice as adjuncts to conventional therapy.^{30,31} While, not breaking any new ground, the articles have a laudable goal, "... to foster the integration of osteopathic manipulation in the clinical arena."³¹ More recently, the authors described five key areas of asthma patient management, including osteopathic manipulation, and emphasized the need for large controlled clinical studies on these treatments.³²

Manipulation of other body areas

There are a number of case reports describing beneficial effects of OMT for treating asthma patients. These articles describe comprehensive approaches where DOs went beyond the normal manipulated regions of the spine and thoracic cage to include the viscera, cranium, and thoracic duct. As early as 1928, an osteopathic physician noted that the "...intestine is connected nervously with almost every part of the body..." and suggested that reflex symptoms from intestinal morbidity could contribute to asthma symptoms via the vagus nerve.³³ The NIH guidelines for asthma management note a relationship between asthma and gastroesophageal reflux in some patients.³⁴

Visceral manipulation was used by one DO to treat an asthma patient.³⁵ In this instance, the patient's asthma came on in her late 40s and did not respond well to conventional OMT.

Later examination revealed an important structural restriction at the

gastroesophageal junction. Manipulation of that area produced dramatic effects as the patient was able to reduce and eventually discontinue her asthma medications. This remarkable result prompted the author to question, "Why have the viscera been excluded from the osteopathic gaze?"³⁵

Dr. J. S. Jealous used cranial manipulation to treat a patient with late onset asthma.³⁶ The treatment plan addressed various psychological and emotional disturbances, as well as specific somatic dysfunctions. Overall, the treating physician felt that balancing the patient's cranial, thoracic, and pelvic diaphragms was of major importance to the restoration of normal neurotrophic function. However, the most important goal was the "reestablishment of the longitudinal fluctuation of the cerebrospinal fluid."³⁶ A textbook on cranial osteopathy addresses cranial manipulation for treating asthma and recommends, "correction of the sphenobasilar extension lesion and normalization of the vagus. . ."³⁷

An article published in the journal *Osteopathic Medicine* in 1981 described a simple counterstrain technique used to abort acute attacks and to reduce attack frequency.³⁸ The goal of the OMT was to treat the first rib and tender points around it, in order to remove restrictions on the thoracic duct. Two case reports were described in which this technique dramatically reversed asthma symptoms.

Several of the articles cited in this review are also referenced in the teaching manual by Kuchera and Kuchera.³⁹ These authors provided a concise description of consistent physical findings in asthma sufferers, the osteopathic approach to treatment, and also recounted a report from one osteopathic hospital in Maine where the average length of stay for asthma patients was less for those who received adjunctive OMT.⁴⁰ This emphasized the point that some effec-

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tive treatment may not directly effect disease course, but may remove other somatic dysfunction, reduce stress on the musculoskeletal system, and generally improve the body's own recuperative process.

Chiropractic Manipulation

Spinal manipulation is used by some in the chiropractic profession as a treatment for asthma, despite a lack of objective research evidence to support the efficacy of this approach. Two recent studies examined whether or not adjunctive use of chiropractic spinal manipulation improved asthma patient symptoms.^{41, 42} The first was a randomized, blinded, crossover trial of chiropractic spinal manipulation in 31 adult patients with chronic asthma, who were divided into a chiropractic treatment group or sham treatment group. Outcome measures included forced expiratory volume in one second (FEV), forced vital capacity (FVC), daily use of inhaled bronchodilators, results of histamine challenge, and patient-rated symptom severity. No significant differences between the two groups was found.⁴¹

More recently, Balon and colleagues compared active and simulated chiropractic adjustments of the spine in childhood asthma.⁴² Data was collected from 80 children, ages 7 to 16, who fit inclusion criteria. Active treatment consisted of low amplitude high velocity spinal adjustments along with soft-tissue therapy. Simulated treatment involved head positioning, gentle soft-tissue massage, palpation, and impulses to the musculature adjacent to the spine. Overall, the authors concluded that the addition of chiropractic spinal manipulation to the standard asthma treatment provided no benefit. There were no significant differences between the groups. However, both studies reported subjective improvement from baseline in perceived

asthma symptoms, and decreased use of β -agonists for both groups.

Conclusions and a call to action

The purpose of this review was to compile and summarize published studies, reports, and case histories that describe osteopathic manipulative treatment for asthma, and to make a case for further scientific clinical outcome research. Several anecdotal reports have described efficacy in the use of OMT for asthma, often with detailed descriptions of manual therapies presented with the confidence born from years of clinical experience. Osteopathic manipulative treatment addresses several consistent somatic findings in asthma patients. An intervention that improves thoracic mobility and favorably affects the regulatory mechanisms of the autonomic nervous system should be beneficial in patients with asthma. Much of the OMT for asthma is directed at balancing the autonomic nervous input to the respiratory tract, which affects bronchoconstriction, inflammation, and airway narrowing.

Current pharmacologic management of asthma has several adverse effects and is still far from a cure. Edward G. Stiles, DO wrote, "the problem with conventional pharmacologic therapy of asthma for the DO is not that these drugs would not stop and prevent attacks, but that they are limited. They do not address the needs and desires of the patient to return to normal health."⁴³

A recent review of alternative and complementary treatments for asthma found little benefit in general for the majority of patients with acute and severe asthma, but with some benefit for persistent asthma sufferers.⁴⁴ This review made only brief mention of osteopathic manipulative therapy for asthma, probably due to the paucity of clinical research evidence available.

Several editorials have been pub-

lished which address the past and future identity of osteopathic physicians.⁴⁵⁻⁴⁷ Many of these articles suggest that maintaining practical and philosophical uniqueness is important to the profession. The use of manual methods for treatment and diagnosis is often mentioned as a major part of that osteopathic distinctiveness and should therefore be vigorously investigated in situations, like asthma, where they could be effective. Gary Campbell, DO wrote in 1981, "The advantages to intervention via the somatic pathway, are several. Primarily, one is probably attacking a central, often unrecognized, etiological factor in asthma. Furthermore, the treatment is highly effective and long-lasting. Also, appropriate evaluation and manipulative treatment usually allows a marked reduction in medication need and use, and in the frequency of acute attacks. Finally, it is safe, has minimal side effects, and makes the patient aware of the body's ability to heal itself if properly directed."³⁸

Research studies to test the efficacy of OMT for treating asthma must be carefully designed and take into consideration many factors, including:

- the study population, since asthma pathogenesis may differ from patient to patient
- the use of simulated/sham treatment controls
- the OMT regimen to use and the duration of treatment
- the experience and expertise of the participating physicians
- the outcome measures such as peak flow readings, reported symptoms, bronchodilator and steroid use, bronchoprovocation challenge results, nocturnal symptoms, and many others. With the cooperation of several osteopathic institutions and well-designed clinical studies, it should be possible to demonstrate whether or not OMT should

be listed among treatment options in future editions of the NIH Asthma Guidelines.

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Mechanism of action of high-velocity, low amplitude thrust technique

by Julian Mesina, DVM, PhD, John Balmer, DO, Stephany Esper, DO, Erik Esper, DO, Robert Evans, DO, Donald Hampton, DO, Lake Erie College of Osteopathic Medicine, Lake Erie, PA

Abstract

HVLA thrust techniques generate a force sufficient to cause strong stretching of the restrictive muscle with subsequent generation of adequate tension to stimulate Golgi tendon organs. Movement into the restrictive barrier during HVLA thrust techniques is made possible by the relaxation of the hypertonic muscle initiated by the inverse stretch reflex mediated by the Golgi tendon organs. In addition, there is a concomitant contraction of the antagonist muscle via excitatory connections of the Ib fibers with motor neurons supplying the antagonist muscle.

High-velocity, low-amplitude (HVLA) thrust technique involves repositioning of the restricted joint toward the restrictive barrier and applying a high-velocity, low-amplitude force on the joint into the barrier (in the direction it will not move). HVLA is intended to benefit patients with joint restriction by reducing pain, freeing motion, improving biomechanical function, or reducing somatovisceral reflex.⁷ However, it is not indicated for certain conditions such as traumatic contracture, advanced degenerative joint disease, or ankylosis. HVLA has several advantages over other osteopathic manipulative techniques which include: (1) immediate relief with decreased pain and increased freedom of motion and, (2) efficient use of physician's time.

The precise mechanism of action of HVLA thrust technique is not known. One conjecture is that it involves the mechanoreceptors in the joint capsule since a sudden stretch or change of position of the joint causes a change in the afferent activity of these mechanoreceptors, resulting in release of muscle hypertonicity.¹ In this paper, we discuss physiological principles and cite laws of physics that would support the aforementioned conjecture and suggest that the mechanoreceptor involved is the Golgi tendon organ.

To a point, the more a skeletal muscle is stretched, the stronger is its reflex contraction. The mechanism for this reflex contraction lies in the muscle spindle. The spindle is in-parallel with the extrafusal fibers, so when the muscle is passively stretched, the spindles are likewise stretched.^{2,3,4} When this occurs, muscle spindle discharge increases and reflex shortening of the muscle results. However, when the tension produced by stretching of the muscle reaches a certain level, contraction suddenly stops and the muscle relaxes. This relaxation in response to strong stretch is called the inverse stretch reflex. The receptor mediating the inverse stretch reflex is the Golgi tendon organs, which are tension-sensitive mechanoreceptors, innervated by fast conducting Ib afferent fibers. When a muscle is passively stretched, it develops by virtue of its elastic properties passive tension, by

analogy, active tension is used to designate the force developed by muscle contraction.⁵ Since the Golgi tendon organs, unlike the spindles, are arranged in series with the muscle fibers, they are stimulated by both passive stretch and active contraction of the muscle.^{3,4} However, the level of stimulation by passive stretch is not great because the more elastic muscle fibers take up much of the stretch, and this is the reason why it takes a strong stretch to produce relaxation.

HVLA thrust technique employs basic laws of physics to generate the force necessary to produce the strong stretch required to stimulate the Golgi tendon organs of the restrictive muscle. We will begin with the concept of velocity which is the first time derivative of the position vector. The position of an object can be specified by a single vector; namely, the displacement of the object relative to the origin of the coordinate system.⁶ This vector is called the position vector of the object. The components of the position vector of a moving object are functions of the time. If the vector is the position vector \mathbf{r} of a moving object and the parameter is the time t ; the derivative of \mathbf{r} with respect to t is called the velocity, which is denoted \mathbf{v} :

$$\mathbf{v} = d\mathbf{r}/dt \quad (\text{Equation 1})$$

Next, we need to apply Newton's Laws of Motion to understand the relationship between velocity and the generation of force. The time rate of

change of the product of mass and velocity is the 'change of motion' of Newton's second law and, according to that law, is proportional to the force.⁶ In other words, the second law can be written as

$$F = d(mv)/dt \quad (\text{Equation 2})$$

where **F** is the force and a constant of proportionality taken as being equal to 1.

The product of mass and velocity is called linear momentum and is denoted by the symbol **p**. Thus,

$$p = mv \quad (\text{Equation 3})$$

The mathematical statement of Newton's second law may then be written as

$$F = dp/dt \quad (\text{Equation 4})$$

Simply stated, when the force exerted by the physician's hand acts on the restrictive muscle, that force generates a corresponding change in the linear momentum of the muscle.

The application of high-velocity low-amplitude thrust by the osteopathic physician on the joint in the direction of the restrictive barrier produces the strong stretch required to generate sufficient tension on the muscle tendons to elicit the inverse stretch reflex. Stimulation of the Golgi tendon organs produces relaxation of the hypertonic muscle via inhibition of its motor neuron. This relaxation allows joint movement into the restrictive barrier. The movement of the joint is assisted by a concomitant contraction of the antagonist muscle. The contraction is due to the fact that the stimulated Ib fibers from the Golgi tendon organs, while causing inhibition of the motor neurons to the restrictive muscle, also make excitatory connections with motor neurons supplying the antagonist muscle.^{3,4} When the osteopathic phy-

sician "locks out" the restricted joint, he/she is actually making the conditions optimal for the force of the thrust to be focused on the particular joint. Moreover, this maneuver positions the restricted bone(s) so it can move in the direction of greatest ease. The net effect of HVLA thrust technique is relaxation of the restrictive muscle with concomitant contraction of the antagonist muscle and together these two events allow movement of the previously restricted joint back to its normal resting position.

In conclusion, we wish to quote I.M. Korr, PhD who wrote,² "To a physiologist, it seems much more reasonable that the limitation and resistance to motion of a joint that characterize an osteopathic lesion do not ordinarily arise within the joint, but are imposed by one or more of the muscles that traverse and move the joint." It is our opinion that HVLA thrust technique does not directly move the bones in a restricted joint but rather, it exerts its effect on the Golgi tendon organs which allow movement of the bones in the joint back to their normal resting position via relaxation of the restrictive muscle and a concomitant contraction of its antagonist muscle.

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Pilot study relating pulmonary Function to leg length inequality

by Charles J. Crosby, DO, FAAOS, Chief of Surgery, Orthopaedic Surgeon, Orlando Veterans Administration Clinic, Orlando, Florida

Abstract

This is a clinical investigation performed at the Orlando Veterans Administration Outpatient Clinic, Orlando, Florida. It investigated the relationship between leg length inequality, and pulmonary function in military veterans suffering from (COPD). Briefly, the 6 veterans were measured for leg length by means of a standing x-ray. They were taught a self-mobilization method of the thoracic cage. The average age was 70 years. A 20 percent increase in pulmonary function was noted in this controlled study.

Introduction

The principles of somatic motion and the structural functional relationship have been the basis of osteopathic medicine since its inception by A.T. Still nearly a century ago. This investigation pursues this concept in a large metropolitan area through the facilities of the Orlando Veterans Administration Outpatient Clinic.

The initial investigation involved the cost-effective management of chronic pain. During that investigation it was noted that several of the participants also suffered from chronic obstructive pulmonary disease (COPD). It became apparent to several practitioners that as the patient's chronic back pain improved their pulmonary status also improved.

Materials and Methods

Under the auspices of the James A. Haley V.A. Medical Center,

Tampa, Florida and the University of South Florida School of Medicine, Tampa, Florida, a formal study was initiated. There were 6 veterans, all male subjects. They were selected on a random basis among those suffering from COPD with a leg length difference greater than 2mm as determined from a standard standing pelvis x-ray.¹

The standing pelvis x-ray was measured from the bottom of the film to the top of the femoral head.² The participants were non-smokers. They could not be woodwind musicians. There could be no history of thoracoplasty. Prior to the study standard pulmonary function studies were established as a base line, included were findings from a Morgan Spiroflow and Boehringer Inspiratory force meter with a range of ± 150 cm h₂O. The same pulmonary technician conducted the testing in all instances. He was unaware of the participants status in the study i.e.; control vs. experimental group. Prior to entering the program, all participants were evaluated by a pulmonologist for maximal medical improvement using the available medical modalities.

The participants were then referred to orthopedics for osteopathic structural evaluation. Those selected for the experimental group (odd social security number) were taught a self-mobilization technique for the upper thoracic area. They were also given a lift to be worn inside their shoe to compensate for their leg length inequality.

All participants were subsequently re-evaluated in 6 to 8 weeks by means

of repeating the pulmonary function studies and re-evaluation by the orthopedists to determine the level of compliance. If the participants could demonstrate the exercise and had normal thoracic motion in addition to wearing the shoe lift, they were considered to be compliant. The veterans had been instructed to do the exercise program twice daily and to wear the shoe lift at all times that they were out of bed.

The exercise program is somewhat similar to a method used by A.T. Still for self-mobilization.³ However, in this instance a roller was used. Several items have been used successfully including a roll of table paper, a rolling pin, a length of two inch PVC pipe or a baseball bat. The method is as follows:

The roller is orientated parallel to the spine about two inches to the left at the mid thoracic level. The patient is then instructed to move very slowly until a painful area is located on top of the end of the roller, then rest and relax in that position for one minute by the clock. Next, slide the roller up (cephalad) on inch. Repeat one minute by the clock. Continue this sequence until the roller comes out from under the back at the neck. Repeat on the right side of the back. Do this exercise twice daily.

Selected Cases

A 78-year-old white retired male, who is using Darvon and inhalers from his family physician. Diagnosis COPD and CAD. One-inch leg length discrepancy. Left is shorter.

21.8% improvement at 6 weeks
15.8% improvement at 12 weeks.

A 68-year-old construction supervisor. Diagnosis, severe gun shot wound to right upper extremity, COPD, 3/4 inch leg length discrepancy, 13.5% improvement at 6 weeks with 3/8" lift. 16.2% improvement at 12 weeks with 3/4" lift.

A 75-year-old retired naval architect. Diagnosis COPD albuterol 3 puffs q 4 hours, beclamethozone 3 puffs tid nasal 8 puffs qid oral, ipratropium 3 puffs qid 3/8" leg length discrepancy 31% improvement at 6 weeks 1/4" lift 30% improvement 3/8" lift at 8 months.

A 67-year-old retiree. Diagnosis CA prostate psa 28, COPD leg length discrepancy 3/8" dextromethazone inhaler nasal 4 puffs 16% improvement at 6 weeks with 3/8" lift.

A 71-year-old retired electronic technician. Bilateral total knee replacement. Leg length discrepancy 5/8" shorter on the right. A control no lift, no exercises. (-35% at 6 weeks.)

A 84-year-old. COPD treated in a pulmonary rehabilitation program at a local hospital. Leg length discrepancy 3/16", 3/8" lift. Not doing exercise = non-complaint. (-26% at 6 weeks and -15% at 12 weeks.)

Results

Average age 70 years. 20% improvement in pulmonary function noted in those participants who were compliant with the protocol. The limited number of controls showed declining functional capability with time.

Discussion

The first stage of lung development is marked by the appearance of a longitudinal groove on the ventral side of the primitive foregut 26 days after conception. This endodermal bud then bifurcates and grows dorsally on either side of the foregut as the primitive right and left lungs. Fur-

ther branching eventually gives rise to lung lobes, segments and their finer divisions by a process of asymmetrical dichotomy.⁴

The ribs develop from the mesenchymal costal processes of the thoracic vertebrae. They become cartilaginous during the embryonic period and ossify during the fetal period. The original site of union of the costal processes with the vertebra is replaced by costovertebral joints.⁵

The muscles of respiration fall into several groups. First, the inspiratory muscles including the diaphragm, the parasternal intercostal, and the scalene muscles. The sternocleidomastoid muscles are the most commonly used accessory inspiratory muscles, but the lateral external intercostal and other thoracic muscles are also often recruited to assist in inspiration. The principal expiratory muscles lie in the anterior abdominal wall and include the transverses abdominis, the rectus abdominis, and external and internal oblique muscles.⁶

The inspiratory muscles receive their innervation from the anterior horn cells that lie in the cervical and thoracic portions of the spinal cord. The motor neurons supplying the expiratory muscles lie in the thoracic and upper lumbar portions of the spinal cord.⁷

A discussion of the respiratory process would be incomplete without consideration being given to rib motion. Upper thoracic rib motion is frequently described as a "pump handle" and the lower thoracic pattern labeled "bucket handle" type motion. The "pump handle" refers to the fulcrum of the motion being located at the costovertebral articulation. This is in contrast to the "bucket handle" where the axis of rib motion extends along an imaginary line extending between anterior and posterior extremes of the lower thoracic ribs.⁸

The characteristic limitation of motion, noted in all subjects in this study, is the absence of motion in the "pump handle" mechanism of the

upper thoracic region. This was determined clinically by simply laying hands on the upper thoracic region, with the patient prone, and noting the absence of motion in that area as relaxed inhalation and exhalation continued.⁹

It is the interaction between these structures under cerebral control that is responsible for the complex exchange of gases that occurs known as respiration. It is our concern in this paper to consider the possible etiologic factors that maybe contributing toward the results noted in this preliminary study.

The first consideration is that correction of the skeletal imbalance resulting from leg length inequality would allow the spinal articulations to follow their normal motion pattern. Secondly, manual mobilization of the thoracic cage by the patient would further promote motion in the anterior posterior and lateral planes of rib motion. The combination of these two alterations in the previous pathologic state could offer a possible explanation for degree of unexpected improvement noted in these patients.

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Affiliated organization's CME calendar...

January 14-16

The Therapeutic Link

Osteopathy's Promise to Children
Osteopathic Center for Children
San Diego, CA

Hours: 16 Category 1A

Contact: OCC's Web Site:

www.osteopathic-ctr-4-child.org

January 20-23

Phase V – Biodynamics series

Franconia, NH

Hours: 22 Category 1A

Contact: James Jealous, DO

(207) 778-9847

January 23-27

Osteopathic Medicine:

A Universal Approach

Osteopathic Physicians
and Surgeons of California
Universal City, CA

Hours: 40 Category 1A

Contact: OPSC

(916) 561-0224

January 28-30

44th MidWinter Conference

Texas Osteopathic Medical Assn
Dallas, TX

Hours: 17 Category 1A

Contact: TOMA

(800) 444-8662

February 10-14

Basic Course:

Osteopathy in the Cranial Field

Sutherland Cranial Teaching Foundation
San Diego, CA

Hours: 40 Category 1A

Contact: SCTF – Judy Staser

(817) 926-7705

February 17-21

Mid-Winter Basic Course

The Cranial Academy
Phoenix, AZ

Hours: 40 Category 1A

Contact: The Cranial Academy
(317) 594-0411

February 27-March 3, 2000

Ski & CME Midwinter Conference
Colorado Society of Osteo. Medicine
Keystone, CO

Hours: 40 Category 1A

Contact: Brooke Chynoweth
(800) 527-4578

May 4-7

103rd Annual Convention

Indiana Osteopathic Association
Sheraton Hotel/Westin Suites
Indianapolis, IN

Hours: 30 Category 1A

Contact: I.O.A.

(800) 942-0501 or

(317) 926-3009

May 18-22

Basic Course:

Osteopathy in the Cranial Field

Sutherland Cranial Teaching Foundation
San Diego, CA

Hours: 40 Category 1A

Contact: SCTF – Judy Staser

(817) 926-7705

June 17-21, 2000

June Basic Course

The Cranial Academy
Philadelphia, PA

Hours: 40 Category 1A

Contact: The Cranial Academy
(317) 594-0411

June 22-25, 2000

Annual Conference

The Cranial Academy
Philadelphia, PA

Contact: The Cranial Academy
(317) 594-0411

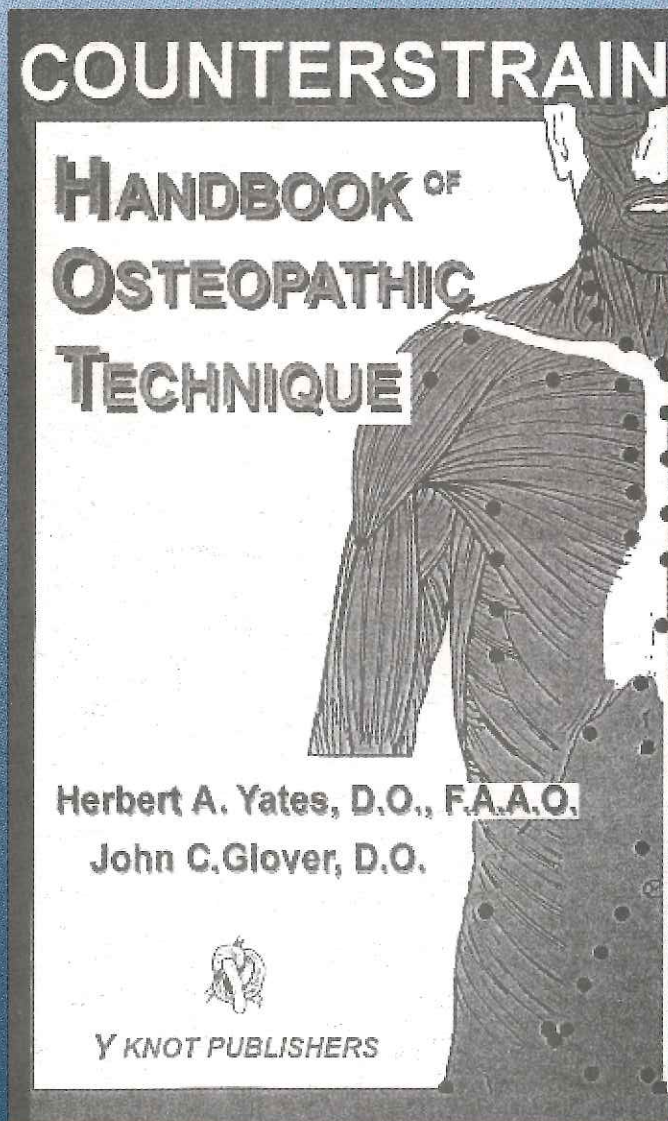


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