

IN THE SPOTLIGHT

A History of the American College of Osteopathic Sclerotherapeutic Pain Management, the Oldest Prolotherapy Organization

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ABSTRACT

Modern Prolotherapy evolved from the insights and courage of a few doctors in the early part of the 1900's. These pioneers would then form groups to teach others, share knowledge, and improve techniques. The earliest record of such a group started as the American Society of Herniologists in 1926, now known as the American College of Osteopathic Sclerotherapeutic Pain Management. This fascinating article reviews the history of these courageous men and how their hard work and efforts developed into a organization that not only promotes and teaches state-of-the-art Prolotherapy, but is on the cutting edge of musculoskeletal medicine.

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The day was like any other for Dr. Earl Gedney, an osteopathic surgeon at the Osteopathic Hospital in Philadelphia. It was 1936. Dr. Gedney prepped for surgery, as usual, but this time when he went through the electric doors to the operating room, the doors closed prematurely on his hand, pulling his thumb joint so far that it hung limp off his hand. After checking with several colleagues and getting X-rays, Dr. Gedney learned there was no fracture, no correctable dislocation, only a very severe stretching of the ligaments and tendons at the thumb joint. He suffered in pain and could barely move his thumb. Far worse, he was told by the best surgeons he knew that there was nothing that could be done for him and that he would have to retire from doing what he loved most, being a surgeon. (See Figure 1.) Dr. Gedney was not the type of person to give up. He was resourceful

and intelligent. Gedney had been pondering the problem of the hypermobile joint since 1925 when, as a medical student, he heard a lecture on restricted motion in lumbar segments. At that time the young Gedney asked the speaker, the late Dr. Charles Muttart, the question: "What about treatment of the vertebra that is too freely mobile?" Dr. Muttart answered: "That, my young man, is the problem for your generation to solve." Gedney took this to heart.

Faced with the situation of his own hypermobile joint, Gedney put his thoughts together. He had recently attended a lecture discussing sclerosing (irritating) solutions for abdominal hernias (muscle weakness or tears) and knew of a group of physicians who had been doing this for years. These physicians were known as "herniologists." The idea behind the herniologists' method of treatment was that irritating injections would stimulate repair and scar tissue formation, making muscular tissue at the hernia site thicker and stronger. This was in the days before modern surgery when surgical risk was quite high, so a non-surgical approach was popular for hernia repair. The first organization for hernia sclerosing methods was formed in 1923 and became the American Society of Herniologists in 1926. By the early 1930s, such procedures were declared a success in the treatment of hernias. The American Osteopathic Society of Herniologists was formed in 1938 for the injection of hernias, veins and hemorrhoids. One of its early Presidents was Dr. Harry Earl Stahlman, a 1918 graduate of the internship program at the Philadelphia College of Osteopathy. (See Figures 2-4.)

What happened next set the stage for modern Prolotherapy. Dr. Gedney extrapolated his knowledge of non-surgical hernia repair to the non-surgical repair of joints, ligaments and tendons. Reasoning he had little to lose by being a guinea pig for his theory, he started injecting his thumb with the sclerosing solutions and had a dramatically successful result. Before long, he was back working as a surgeon. However, Gedney took it a step further. Excited about his result,



Figure 1. Earl Gedney, DO.



Figure 2. Harry Stahlman, DO.

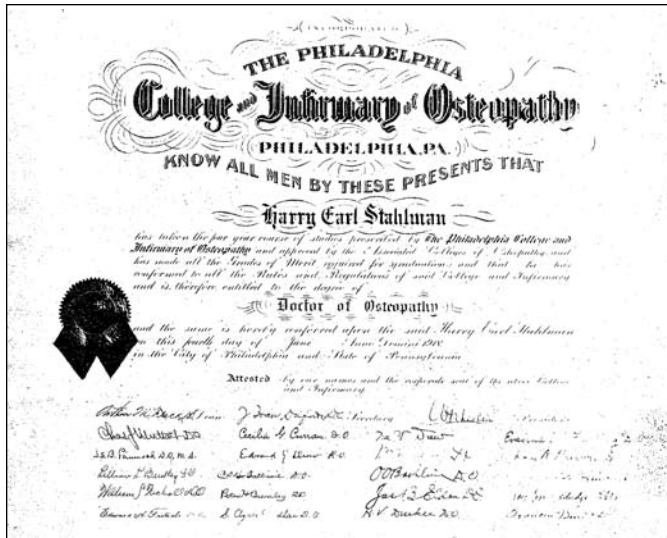


Figure 3. Diploma of Harry Earl Stahlman, 1918 internship class Philadelphia College of Osteopathy.

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Figure 4. Board members listed on the letterhead of the American Society of Herniologists.

he started on a lifelong career of research and in June 1937, he published his first article *Special Technic: Hypermobile Joint: a preliminary report* (*Osteopathic Profession*, 1937; 9:30-31), followed by a presentation: *The hypermobile joint – further reports on injection method* at the February 13, 1938 meeting of the Osteopathic Clinical Society of Philadelphia. Gedney outlined the theory of using sclerosing solutions for joints which had become stretched and were causing pain. The 1937 article gave a preliminary protocol and two case reports, one of a patient with knee pain and another with low back pain, both successfully treated by addressing the hypermobile joint with irritating solutions. He had also recently fathered the Gedney Osteopathic Hospital in Philadelphia where he continued his research. (See Figure

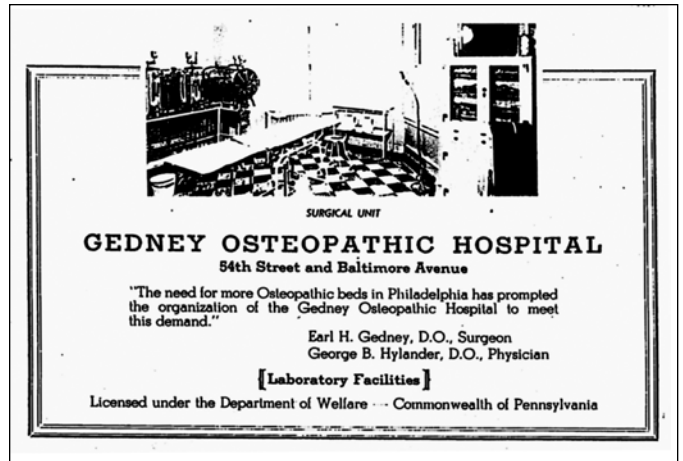


Figure 5. January 1937 Osteopathic Digest Announcement for Gedney Osteopathic Hospital.

5.) Gedney began experimenting with different irritating solutions and perfecting his technique for joint injections, along with his colleague, David Shuman, DO, a 1931 graduate of the Philadelphia College of Osteopathy and who was then an instructor there. (See Figure 6.) Both men began studying and using this technique on unstable joints, especially knees, lumbar spines and sacroiliac joints. In 1949, an article by Shuman appeared in the medical literature: *Sclerotherapy – Injections may be the best way to restrengthen ligaments in case of slipped knee cartilage* (*Osteopathic Profession*, 1949). Both Gedney and Shuman continued to do research and publish reports throughout the 1950s.

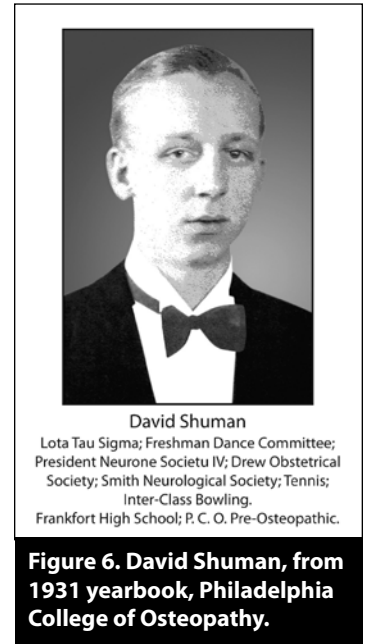


Figure 6. David Shuman, from 1931 yearbook, Philadelphia College of Osteopathy.

Skepticism, however, among orthopedic surgeons existed and more evidence and studies were needed. Now practicing in Maine, Dr. Gedney was determined to provide this evidence, using his own money to fund research if needed. In March, 1950, a Bangor, Maine paper headlined:

“Bangor Doctor Seeks New Approach To Spinal Fusion Of Lower Back In His Experiments With Monkeys.”

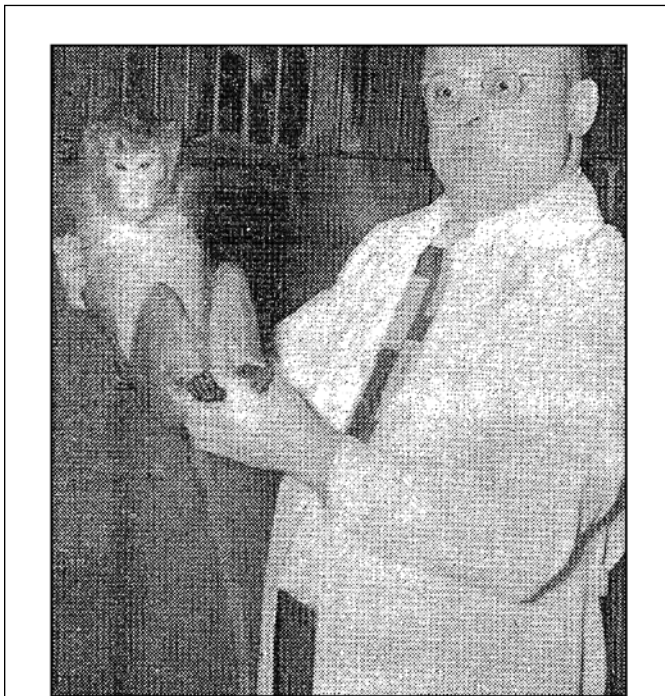
The article goes on to explain that Gedney had been contemplating this type of “needle surgery” study for 20 years, since his graduation from the Philadelphia College of Osteopathy, in order to address the alternative to surgical bone fusion “to the complete satisfaction of bone surgeons.” (See Figure 7.) The paper reported that Dr. Gedney expected to pay out more than \$3,000 from his own pocket to finish this study. The article also states, “The doctor says this experiment is a follow-up to another completed in 1940 which resulted in a new internationally recognized technique in treating hypermobile or loose joints. This method involves needle surgery.” Unfortunately there does not appear to be any conclusion published to the monkey study, however there are three Gedney publications from 1951-1954 addressing disc, low back or sacroiliac issues and injection treatment, but all with regard to human subjects. (Disk syndrome: new approach in the treatment of symptomatic intervertebral disk, *Osteopathic Profession*, September 1951, 11-15; Technic

for sclerotherapy in the management of hypermobile sacroiliac, *Osteopathic Profession*, August 1952, 16-19; 37-38.; Progress report on use of sclerosing solutions in low back syndromes, *Osteopathic Profession*, August 1954, 18-21, 40-44.)

By the 1950s, hernia surgical techniques had progressed so well that there was less demand for hernia sclerotherapy, and because of the interest generated by Gedney and Shuman, the herniologists began paying more attention to joint injections. Two groups formed out of the original group of herniologists: The Sclerotherapy College and, in Philadelphia, the Osteopathic College of Joint Sclerotherapy. In 1954 the two groups combined, forming the American Osteopathic College of Sclerotherapy, which became recognized and chartered by the AOA in 1956. David Shuman went on to be Secretary-Treasurer of the American Osteopathic College of Sclerotherapy from 1968-1977 and also served as President of the Organization, as well as holding distinguished positions as President of the Philadelphia County Osteopathic Society, head of Department of Osteopathic Therapeutics (Juanita Park Medical Center), and Member of the Board of Directors of Blue Cross. In 1960 Shuman published the first layperson’s book on joint sclerotherapy, entitled *Your Aching Back and What You Can Do About It*. The book writes:

“...application of sclerotherapy to weakened sacroiliacs was easy. No operation, no blood, no bone grafts. Just a little weekly hypodermic injection, repeated ten or perhaps a dozen times, and the sacroiliac stayed put. But when it came to problems like spondy [spondylolisthesis], beyond the reach of all operative techniques, and ruptured discs, where operations could promise only a little more than half a chance at complete recovery, sclerotherapy assumed its greatest significance. No myelograms, no nucleograms, no arthrodesis, no fusions, not even hospitalization. Just simple injections, easily made at an office visit the patient could make on his way to the movies.” (Gedney and Staab, *Your Aching Back and What You Can Do About It*, Gramercy Publishing Co, NY, 1960, p. 104).

The book goes on to give numerous case reports, diagrams and examples. It also discusses the work of George Hackett, MD, another surgeon interested in joint sclerotherapy. About the time Gedney was starting to use joint sclerotherapy, George Hackett, MD, made an observation while doing hernia repair on patients previously treated for hernias with sclerosants. He is quoted as saying, “Injections made (usually in error) at



DR. GEDNEY AND “PRETTY”— Dr. Earl H. Gedney, Bangor, is currently engaged in a long-range experiment which may prove greatly beneficial to persons needing surgery for spinal fusion. The doctor is holding “Pretty”, one of his collaborators in the involved research. (Staff photo by Cobb.)

Figure 7. Dr. Gedney with one of his monkeys “Pretty,” *The Bangor Daily News*, Bangor, Maine, Friday March 10, 1950, p. 22.

the junction of ligament and bone resulted in profuse proliferation of new tissue at this union.” Although there is no evidence of direct collaboration between Hackett, and either Gedney or Shuman, the studies done independently support each other’s conclusions, that sclerotherapy (Prolotherapy) for joint pain and disability worked.

Drs Gedney and Shuman and others spent years in their research efforts. They looked at the microscopic effects on ligaments and tendons of various formulas to establish workable protocols for various treatment areas. They formed a lecture team and traveled to various osteopathic medical centers to lecture and demonstrate injections until 1963. In 1967, Shuman wrote a journal article stressing the importance of combining the osteopathic principles of mobilization and ambulation, along with joint sclerotherapy, for low back disorders, a novel concept because at the time most low back pain patients were being confined to bed rest for long periods of time. (Ambulation, osteopathic manipulative therapy, and joint sclerotherapy in the management of common low-back disorders, *Journal of the American Osteopathic Association*, 1967 67:52-59).

In 1986, the name of the American Osteopathic College of Sclerotherapy was changed to reflect its evolution into predominantly injections for joint pain. The new name was The American College of Osteopathic Pain Management and Sclerotherapy. In 1996 the group was granted full status as a college by the AOA and became the American College of Osteopathic Pain Management and Sclerotherapy. Because of a conflict over the use of the term “sclerotherapy” which was also being used by the osteopathic dermatology group to denote varicose veins injections, the AOA changed our name to The American College of Osteopathic Sclerotherapeutic Pain Management (ACOSPM), which is its current name. After twenty years this name has recently come under discussion as needing updating. Studies and biopsies over the last two decades have shown that Prolotherapy solutions in use today stimulate the proliferation of new normal ligament and tendon tissue, not scar tissue which was originally believed and which is reflected in the name “sclero” (scar) therapy. To further confuse the issue, the word “sclerotherapy” has become almost exclusively identified by the general public as meaning varicose vein injections. Thus “sclerotherapy” has become somewhat of a misnomer as it relates to regenerative joint injections

such as Prolotherapy. At the most recent ACOSPM board meeting last spring, discussion began on the idea of changing the name to more accurately represent modern terminology while also preserving the unique historical background of the group. The new name proposed is: The American Osteopathic College of Prolotherapy and Sclerotherapeutic Pain Management. This preserves the historical background of sclerotherapy, and allows continued adjunct teaching of hernia, vein and hemorrhoid injections, but also puts forward the current main emphasis and purpose of our group: Prolotherapy joint injections to stimulate the repair and regeneration of injured joints, ligaments and tendons.

Meetings of the ACOSPM continue, with membership open to both DOs and MDs. Over the past forty years these meetings have taken place at least once or twice yearly, offering instruction to both novice and veteran physicians interested in learning about Prolotherapy and other pain injection techniques. At those conferences speakers demonstrate and share their knowledge. Topics include training in Prolotherapy technique as well as hands on workshops and introduction to current developments in the field such as platelet rich plasma (PRP) Prolotherapy injections. Also taught at the meetings are complementary pain injection techniques such as neural therapy and mesotherapy, providing additional tools for the pain practitioner to help his/her patient. Dr. Aline Fournier, a leader in the field of mesotherapy, and Dr. Gerald Harris, a leader in the field of neural therapy, are both regular speakers at the conferences. Other topics for upcoming meetings include the use of stem cells in Prolotherapy and current research. The ACOSPM’s journal, “GET THE POINT” has recently been reinstated and is available on the group’s website, www.acopms.com.

Also in the works at the ACOSPM is the creation of a residency program. This has already been presented at a meeting of the American Osteopathic Association (AOA) and is pending approval at the next AOA meeting. The residency program will be open to applications from members and will offer extensive training and practice in Prolotherapy and adjunct treatments. The development of an AOA sanctioned residency program is quite exciting as it allows for the creation of standards, protocols and board certification, and opens the door for the more consistent acceptance of medical insurance reimbursement for these procedures.

Video recordings of ACOSPM meetings from the 1980s onward document instruction and lectures. (See Figures 8-12.)

In conclusion, as an osteopathic physician I cannot help but appreciate the striking correlation between Prolotherapy and the osteopathic principles that must have appealed to the early pioneers in the field: that the body has the inherent capacity to repair itself, with the physician an assistant in this process. Prolotherapy also encompasses the Hippocratic notion of “First, do no harm.” While complications can occur, they are rare as compared to surgical risk, another appealing element for the early pioneers. The American College of Osteopathic Sclerotherapeutic Pain Management has come a long way in terms of medical and technical advances and the forwarding of the principles of Prolotherapy. I am sure if Drs. Earl Gedney, David Shuman, Harry Stahlman and the others were still with us they would be proud of how far we have come. ■

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Figure 8. Dr. Rodney Chase demonstrating low back injections.



Figure 9. Dr. F. Curtis Hudgins demonstrating low back injections.



Figure 10. Dr. John Sessions demonstrating low back injections.



Figure 11. Dr. John Sessions discussing neck ligament referral patterns.



Figure 12. Dr. John Sessions, first graduating class, Texas College of Osteopathic Medicine, 1974 (back row). Dr. Sessions is a current ACOSPM Board Member.