



EDITORIAL

Has osteopathy a role to play in treatment of flu?

H1N1 influenza (also referred to as *swine flu*)— for most people who contract it — is no more aggressive or dangerous than regular seasonal influenza. (CDC 2009)

And yet for some the infection has proved fatal, with reports suggesting that the majority of fatalities, related to H1N1 infection, have occurred in individuals who are immune compromised, or who have serious secondary pathologies, including diabetes, liver and/or heart disease.

Most fatalities occur when the infection moves from the standard influenza-like symptoms, to a severe acute respiratory syndrome (SARS), leading to pneumonia. This is a similar pattern to those who contracted Avian H5N1 influenza, several years ago. (MMWR 2003)

Osteopathic possibilities?

The Spanish flu outbreak of 1918 was the first of its kind to have a variety of modern treatment approaches applied. These included osteopathic, naturopathic and chiropractic care, in addition to standard medical care. The U.S. Dept Health & Human Services lists three reasons why, at that time, standard medical care was ineffective. First, physicians mistakenly believed Pfeiffer's bacillus (rather than a virus) was responsible, despite a lack of supportive scientific evidence. Secondly, masks were relied upon despite their ineffectiveness with viruses (masks CAN prevent bacterial spread). Lastly, although few physicians believed in miasmas and imbalances in the humours, their remedies derived from these theories. (U.S. Dept Health & Human Services 2009)

Magoun (2004) has presented a well-documented approach to osteopathic care at that time — with implications for those who have influenza nowadays, whether regular seasonal, Avian H5N1, or the current model, H1N1.

Magoun (2004) discusses osteopathic manipulative approaches:

In the United States, more than 28% of the population succumbed (Kolata, 2001) In US military hospitals, the mortality rate averaged 36%, while the mortality rate in US medical hospitals fell between 30% and 40%, with the exception of a rate of 68% in medical hospitals in New York City. (Patterson 2000) ... the American School of

Osteopathy, now the Kirksville College of Osteopathic Medicine ... contacted all their alumni. This effort culminated in 2445 osteopaths responding in treating 110,122 patients with influenza, with a resulting mortality of 0.25%. One of the few osteopathic medical hospitals, 400- bed Massachusetts Osteopathic Hospital, in Boston, also reported a mortality of 0.25% for that period. (Walter 1992)

Building on this historical evidence, Hruby & Hoffman (2007) note that, although there were no controlled studies (and no descriptive comparisons between MD and DO patients), osteopaths achieved a high success rate perhaps due to osteopathic manipulative therapy

What treatment did osteopaths use

OMT (osteopathic manipulative treatment) comprised a series of modalities that attempted to enhance thoracic mobility and lymphatic drainage, as well as liver, spleen and abdominal function.

Hruby & Hoffman have described the range of approaches used — not as a specific protocol, but, “as a listing of OMT procedures as a resource for use in an overall treatment plan for a given patient These include thoracic, hepatic, splenic, abdominal and pedal lymphatic pump procedures, as well as rib raising procedures. Also included are other OMT procedures that, although not thoroughly researched, have been clinically observed to provide similar effects. These procedures include soft tissue procedures, pectoral traction, mandibular drainage, frontal and maxillary lifts, and diaphragm doming ...[as well as]..., muscle energy techniques that can help to improve rib cage biomechanics.”

Most such approaches would be familiar to osteopathic practitioners.

Belief

It may be useful to reflect on the effects of the strong and widespread conviction, held by many osteopaths (and chiropractors) — that manipulative methods are capable of encouraging the self-regulating functions of the body — and how such convictions —(possibly more widely held in 1918

than 2010?) were able to translate to their flu-ridden patients?

Paulus (2006) articulates this view when he says that the "quintessential goal" of the osteopath should be to: "diagnose the lack of motion and to help restore any quality of motion to the disordered region restoration of motion, not alignment of the musculoskeletal system, activates the therapeutic process that bring about healing."

Current evidence?

Interestingly, although PubMed lists 956 H1N1 citations during the past six months, not one includes these keywords: manual therapy, lymphatic or even physical therapy. (PubMed, 2009) However recent research supports the possibility that general OMT is beneficial in enhancing immune function, particularly with respect to upper respiratory infections.

For example:

- Sleszynski and Kelso (1993) demonstrated that prevention of post surgical atelectasis, using osteopathic thoracic manipulation was just as successful as incentive spirometry
- Jackson et al. (1998) found lymphatic and splenic pump techniques enhanced the antibody response to hepatitis B vaccination
- Noll et al. (1999, 2000) provided clear evidence of the value of OMT in care of elderly hospitalized pneumonia patients. Manual methods were applied to elderly hospitalized patients with pneumonia, Hospital time was reduced from a mean of 8.6 days without OMT to 6.6 days for those receiving OMT. Additionally OMT patients required less intravenous antibiotics
- Nicholas & Oleski (2002) Described a four-step protocol, composed of rib raising and treatment of the thoracic inlet, respiratory diaphragm, and pelvic diaphragm – for postoperative pain. "Patients who receive morphine preoperatively and OMT postoperatively tend to have less postoperative pain and require less intravenously administered morphine. In addition, OMT and relief of pain lead to decreased postoperative morbidity and mortality and increased patient satisfaction. Also, soft tissue manipulative techniques and thoracic pump techniques help to promote early ambulation and body movement."
- Knott et al. (2005) demonstrated that osteopathic thoracic pump, and abdominal pump techniques, increased the flow of lymph through the thoracic ducts of mongrel dogs.

The potential value of such methods, applied in appropriate situations, alongside standard medical care, by osteopaths, physiotherapists, chiropractors, or other suitable trained therapists/practitioners, deserves further study, and not just in relation to H1N1.

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