

Kaylene Joseph D.O.M.P  
Dr. Shahin Pourgol  
National Academy of Osteopathy  
April 19, 2015

The Medical and Manual Osteopathic Treatment of Rheumatoid Arthritis

Rheumatoid Arthritis (R.A), is one of the leading causes of disability in North America. Approximately three hundred thousand Canadians have been diagnosed with R.A affecting women three times more than men. R.A can be diagnosed at any age however, it is most commonly found between the ages of twenty-five to fifty.

So, what exactly is R.A? The Canadian Arthritis Society writes that “RA is a type of inflammatory arthritis and an autoimmune disease. An autoimmune disease is one where the body’s immune system becomes confused and begins to ‘attack’ the body.”<sup>1</sup> The autoimmune system targets the tissue in the lining of the joints. Sometimes the immune system will attack against organs including the lungs and heart. The results of the immune system attacks to the body causes symmetrical swelling, pain and inflammation in addition to joint destruction.

Unfortunately, medical scientists haven’t found a root cause or a cure for R.A however, if the disease is diagnosed early methods can be implemented to help to prevent severe damage to the patient’s joints. Some symptoms include swelling, stiffness and pain in large and small joints (including but not limited to) wrists, fingers, toes, hips and knees. Other symptoms also include low grade fevers, fatigue and weight loss. With the combination of medically prescribed medications to help control and prevent damage caused by these symptoms, regular osteopathic treat-

---

<sup>1</sup> “What is Rheumatoid Arthritis”, What is Rheumatoid Arthritis? Accessed April 19, 2015, <http://www.arthritis.ca/page.aspx?pid=982>.

ment and making the right lifestyle choices, R.A is definitely a disease that can be carefully managed and the patients quality of life can be improved while coping with the disease.

The main goal in treating Rheumatoid Arthritis is controlling and reducing inflammation in the joints while preventing long term damage. There are a few types of drugs that are used in combination with each other to help to control symptoms and prevent permanent damage to the body. Disease Modifying Anti-Rheumatic Drugs (DMARDs) are often used with a Non-Steroidal Anti-Inflammatory (NSAIDs) drugs<sup>2</sup> however, some patients are also prescribed Corticosteroids (steroids) as short-term emergency relief. New science has also brought on another effective class of drugs called Biologics.

Disease Modifying Anti-Rheumatic Drugs help to slow the biological processes attack on the joints causing inflammation. Prescribing this early will benefit the patient in helping to prevent further and permanent damage to the joints. While DMARDs help to stop further damage from occurring, it is important to take note that they cannot fix already damaged joints. This type of drug may take as long as six to twelve weeks for patients to feel its effects. In some cases, Doctors may prescribe more than one DMARD in accordance with the severity and stage of the patients R.A.

Non-Steroidal Anti-Inflammatory Drugs are used for the main purpose of controlling and relieving symptoms of R.A. As mentioned previously, this includes stiffness, soreness and swelling. There are no long-term benefits to NSAIDs and they can take anywhere from hours to two weeks for patients to feel their effects. It is common that some NSAIDs have a better effect

---

<sup>2</sup> “What medications are used for RA?”, Rheumatoid Arthritis Accessed April 19, 2015, <http://www.arthritis.ca/page.aspx?pid=982>.

on patients than others do. It is important to note that the use of NSAIDs often gives the patient minor side effects including indigestion, heartburn, stomach cramps and nausea.<sup>3</sup> These drugs also run patients at a higher risk of ulcers and stomach bleeding. It is important to discuss all of your medical history with your doctor.

Corticosteroids are mainly used as interim medications to control inflammation. They are not commonly used on a regular basis with patients. In the 1950's, doctors discovered that giving extra cortisone to patients with R.A dramatically improved their symptoms.<sup>4</sup> This is because cortisone is a hormone produced by the body's adrenal glands that help to regulate inflammation from minor injuries.<sup>5</sup> Giving extra doses on cortisone helps because the body cannot naturally produce enough on its own to handle arthritic inflammation. Steroids are generally administered orally, injected or by intravenous.

New science has recently introduced a new method called Biologics. Biologics work the same way DMARDS do to suppress inflammation. Biologics are administered by injection or infusion by intravenous into a vein. This method can also take days and months to feel its benefits depending on the patient. It is important to note that biologics have a tendency to suppress the body's immune system which in turn will make it harder for the patients body to fight off infections as a side effect.<sup>6</sup>

All in all, it is important for R.A patients to discuss their options with qualified doctors and specialists. There is no current cures for arthritis or damage caused by arthritis, DMARDS or

---

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

Biologics that work to prevent further damage are most important in caring for Rheumatoid Arthritis.

Aside from medical drugs, it has been found that Manual Osteopathy is extremely beneficial for R.A patients. Manual practitioners use a few different methods to help relieve the affected areas by applying Soft Tissue Therapy, Joint Mobilization and Muscle Energy Techniques. Every patient's inflammation and discomfort level may vary depending on the severity of the R.A. As discussed earlier, the most common kind of pain is symmetrical and can be found in the hips, fingers/toes and knees. There are many different techniques that can be used on each patient for each joint and extremity. Some techniques may relieve pain better than others, depending on the patient's preference.

Soft Tissue Therapy (STT) is used to gently manipulate the fascia in the surrounding area of the pain. The goal of STT is to gently relieve tension in the muscles while bringing blood and lymphatic fluid flowing into the area. The osteopathic organization of Ontario writes that "Keeping fluids flowing smoothly reduces harmful fluid retention and makes the body's immune system more effective."<sup>7</sup> This means that STT would be beneficial in helping to reduce inflammation and pain associated with R.A. Once the practitioner can get a proper feel around the joint that is inflamed, they can easily go into one of several mobilization techniques.

A Mobilization Technique involves gently moving and releasing joints and bones in the body. These techniques help to relieve pain, spasms and nerve irritations around the joints and bones. In turn, mobilization helps to improve mobility in the joint which increases the range of motion and ability for the patient to move easier.

---

<sup>7</sup>"Osteopathic Treatments", Osteopathy Ontario, Accessed May 1, 2015, <http://osteopathyontario.org/about-osteopathy/manual-osteopathic-treatment-methods/>.

The following are a few mobilization techniques that can help to relieve some of the problem areas commonly found in R.A Patients. There are a few different techniques listed for each joint to demonstrate different approaches a manual practitioner may use to work on one joint. These techniques are provided courtesy of The National Academy of Osteopathy's D.O.M.P program.

**Hip Joint Mobilization:**

Supine Anterior to Posterior with contact on the palm of the hand

Supine Medial to Lateral with Leg Lift

Supine Long Axis Traction

Prone Internal to External Hip Rotation

**Knee Joint Mobilization:**

Prone Traction Technique

Supine Long Axis Traction

Supine Medial to Lateral

Supine Multi-Axial

**Foot Joint Mobilization:**

Supine Tarsal-Metatarsal Anterior to Posterior, Posterior to Anterior.

Toes Traction

Toes Rotation

**Hand Mobilization:**

Seated Carpal-Meta Carpal Traction

Anterior to Posterior and Posterior to Anterior Phalanges

Rotation Phalanges

Muscle Energy Techniques (MET) are also a big part of Osteopathic treatment. These techniques include contracting and stretching muscles around the problem area in order to relieve pressure. This creates more space around the joint to help with proper muscle alignment and length.

MET stretching generally involves a muscle contracting for approximately five seconds with the patient using twenty-five percent of their energy. After the contraction the Manual Practitioner will allow the patient to relax the muscle for a few seconds before stretching the muscle to the end of its flexibility range. Each MET is usually performed two to three times and applied to the muscles around the joint by using a variety of different techniques. MET stretching has been proven to increase the flexibility in the muscles and ligaments in the body with just one treatment. Just like the mobilization techniques, there are a variety of different ways to stretch the muscles and joints in the body. If a patient is not as mobile in one area, there are many different modifications the practitioner can apply to complete the stretch.

The following are a few muscle energy techniques that can help to relieve some of the problem areas commonly found in R.A Patients. There are a few different techniques listed for each joint to demonstrate different approaches a manual practitioner may use to work on one joint. These techniques are also provided courtesy of The National Academy of Osteopathy's D.O.M.P program.

**Hip Joint Mobilization:**

Supine Hip Extension

Lateral Recumbent Abduction/Adduction

Prone Hip Flexion with Leg Lift

**Knee Joint Mobilization:**

Supine Extension/ Flexion

Prone Extension/ Flexion

**Foot Joint Mobilization:**

Supine Planter Flexion

Supine Dorsiflexion

**Hand Mobilization:**

Seated Finger Extension / Flexion

The guiding tenets of Osteopathic Medicine is a policy that follows the philosophic principals of Andrew Taylor Still, the discoverer of the Science of Osteopathy and founder of the American School of Osteopathy. These four principals are<sup>8</sup>:

1. The body is a unit; the person is a unit of body, mind, and spirit.
2. The body is capable of self-regulation, self-healing, and health maintenance.
3. Structure and function are reciprocally interrelated.
4. Rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

---

<sup>8</sup> "Tenets of Osteopathic Medicine", American Osteopathic Association. Accessed May 12, 2015, <http://www.osteopathic.org/inside-aoa/about/leadership/Pages/tenets-of-osteopathic-medicine.aspx>.

With these principals in mind, it is important to note that applying them to a patient with R.A is the most beneficial way to improve and prevent the effects it has on the body. As structure and function work hand in hand with each other, in addition to the medical and osteopathic treatment of R.A, coupled with proper diet and daily fitness routines are also important. Different therapies and topical treatments can also be used in order for the patient to keep the best care of their body while living with R.A.

Diet is so important for every human being on this earth! For R.A patients, their diet can focus on foods that naturally aid as anti-inflammatories. Consuming foods rich with Omega-3 Fatty Acids, like Salmon, Mackerel and Tuna a few times a week has been proven to reduce inflammation.<sup>9</sup> Some spices are also beneficial for decreasing inflammation- Turmeric and Ginger. Although, the evidence for these spices helping R.A's kind of inflammation isn't solid yet, it has been proven that Turmeric helps to slow the process of NF-Kappa B which is a protein that initiates inflammation in the body.<sup>10</sup> Ginger has been proven to decrease inflammation in the intestines.

In addition to diet, exercise is equally important. Maintaining a healthy weight will not only relieve unwanted stress added onto joints that may already have damage from the R.A, but it will improve the patient's quality of life. In most cases, gentle exercise will be the best way for patients to maintain their weight and body's overall health. Yoga, Tai-chi, walking or light jogging, are all great examples of activities that may work best for patients. Keeping a positive outlook on coping with a disease like R.A is a key element to body wellness, activities such as medi-

---

<sup>9</sup> "14 Foods that Fight Inflammation", Health. Accessed June 18, 2015. <http://www.health.com/health/gallery/0,,20705881,00.html>.

<sup>10</sup> Ibid.



tation, relaxation/breathing techniques and visualization exercises can help patients to deal with the day to day pain that R.A can cause.

There are also a few other alternative therapies that patients can try while taking care of their R.A with Manual Osteopathy and medications. Acupuncture, Massage Therapy, Copper and Magnetic bracelets, topical treatments such as (Lakota or Voltaren) or hot and cold therapies. Always make sure to consult your family doctor or specialist before trying different therapies.

In conclusion, with the proper diagnosis for medical treatments and manual osteopathy, there are many other additional avenues patients can take to control the disease and continue with a positive and healthy lifestyle. Proper medications with NSAID's and a form of a DSAID, proper attention to the joints and muscles by seeing a manual practitioner to help mobilize and stretch the patient will give the patient their best chance at slowing or relieving the symptoms and effects that Rheumatoid Arthritis have. A healthy lifestyle rich with the proper diet and physical activities will also help to soothe R.A's effects and help to bring a positive balance to each patients life.

Word Count: 2217

### **BIBLIOGRAPHY**

1. The Arthritis Society. "What is Rheumatoid Arthritis?". Accessed April 19, 2015. <http://www.arthritis.ca/page.aspx?pid=982>.
2. The Arthritis Society. "What medications are used for RA?". Accessed April 19, 2015. <http://www.arthritis.ca/page.aspx?pid=982>.
3. Osteopathy Ontario. "Osteopathic Treatments". Accessed May 1, 2015. <http://osteopathyontario.org/about-osteopathy/manual-osteopathic-treatment-methods/>.
4. American Osteopathic Association. "Tenets of Osteopathic Medicine". Accessed May 12, 2015. <http://www.osteopathic.org/inside-aoa/about/leadership/Pages/tenets-of-osteopathic-medicine.aspx>.
5. Health. "14 Foods that Fight Inflammation". Accessed June 18, 2015. <http://www.health.com/health/gallery/0,,20705881,00.html>.