**INHIBITING THE MUSCULOSKELETAL PATHOLOGICAL PROCESSES POST-KNEE REPLACEMENT SURGERY WITH OSTEOPATHIC MANIPULATIVE TREATMENT: A LITERATURE REVIEW**

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**BACKGROUND:** Osteoarthritis or severe degenerative joint disorder of the knee is the most common cause of chronic disability among the elderly population in the United States. Total Knee Arthroplasty (TKA) has become the standard approach to relieve pain, restore function, and impart stability for individuals that present with severe degenerative joint disorder of the knee. Osteopathic Manipulative Medicine (OMM) functions on a deeply rooted philosophy that the anatomical body affects the physiology of the body.  With one entity affect the other and health is reached when balance between the two is achieved.  An imbalance between the two system is known as a somatic dysfunction. Osteopathic Manipulative Therapy (OMT) is a series of techniques to diagnose and treat these somatic dysfunctions to restore balance. Incorporation of OMT into the recovery course in theory should improve outcome.

**METHODS:** A search was performed on the various journals in the English language with the objective of identifying publications associated with usage of alternative medicine post op Arthroplasty. Each publication reference list was also searched to provide a more comprehensive data set. Since OMM literatures are scarce, additional resources are also reviewed through similar techniques to ensure this study is inclusive.

**RESULTS:** Optimal recovery can be measured through range of motion of joint through monitoring stiffness, pain and swelling. Retrospective study indicated 52% of fifty patients reported moderate pain post-operative TKA along with concomitant use of strong opioid. A large patient series with 33 TKA patients around 8-12% of patients experienced painful stiffness post op. Retrospective study where 38 patients received OMM show earlier stairs ambulation with less analgesic compared to control. In another trial, patients received OMT with manual lymphatic however there were no significant differences between the groups that received MLD vs controlled patients when measuring limb girth for edema indication

**CONCLUSIONS:** While there are varying outcomes reported by literature, OMT has shown in many aspects to increase the efficacy of the recovery course post TKA. Patient in OMT groups showed a greater increase in flexion despite less office visits.  Another common sequelae of TKA is localized swelling which can be targeted with manual lymphatic techniques in aide of fluid movement and drainage. Reducing chance of serious long term side effects that can arise from increased pressure due persistent edema. In the treatment of chronic and subchronic pain, studies have been conducted to measure the efficacy of an OMT approach versus a standard medical care approach. This demonstrated that osteopathic manual care achieved similar clinical results, while utilizing less medication than the standard medical care approach. Overall lessen the analgesic load on patients. OMT has also demonstrated to be effective in aide of hasten the ability to ambulate, earlier use to stairs and walking is achieved in patients underwent OMT during rehabilitation period. The decrease in analgesic load and early ambulation promotes quicker return to activity of daily living baseline. Resulting in a decrease in length of stay in hospital or rehabilitation centers as well as less office visits.

**CONTENT CATEGORY:** Patient Care

**KEYWORDS:** *Total knee replacement, arthroplasty, osteopathic medicine (OMM), osteopathic manipulative therapy (OMT), Osteoarthritis*