Effects of Anti-Inflammatory Diets on Rheumatoid Arthritis: An Integrative Literature Review

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**Introduction:** Rheumatoid arthritis (RA) is a common, incurable, and chronic, autoimmune disease that usually targets synovial membranes in the joints. It is associated with economic loss, increased morbidity and mortality, and a reduction in quality of life. It most commonly occurs in people ages 50-75, targets those of any ethnicity and affects women more than men. Treatment is based on suppressing inflammation, preventing joint destruction, pain reduction, and maintenance of function. Many patients choose to participate in their treatment by exploring alternative strategies such as diet alteration.

**Methods:** Literature reviewed was from the following databases: CINAHL Complete (2 were used), PubMed (6 were used), WorldCat (3 were used), and SAGE Journals (2 were used). Search terms included: nutrition and rheumatoid arthritis.

**Results & Discussion:** Thirteen studies related to the effect of diet on RA revealed mixed results. Risk of developing RA and intensity of symptoms were found to be associated with specific diets and individual foods in some studies. However, most studies found no statistically significant association. Based on current research, the most promising dietary alterations include fasting, increasing Omega-3 fatty acids found in fish, and basic diets free from foods like gluten, dairy, and meat. It may also be beneficial to develop additional methods to measure the intensity of RA symptoms.

**Conclusion:** Specific dietary interventions for RA patients cannot yet be recommended. Although only 40-60% of RA risk can be attributed to genetics, the search for the other 40-60% continues. More research is needed to determine the exact role of diet in RA symptoms and development.

**Purpose:** The purpose of this integrated literature review is to explore possible benefits of anti-inflammatory diets on symptoms of RA.

**Pathophysiology:** RA is one of several chronic, autoimmune, inflammatory disorders characterized by vascular lesions and degenerative changes in connective tissue. It involves the activation of CD4 helper T cells followed by the local release of inflammatory mediators and cytokines. Antibodies are formed and directed against joint-specific and systemic autoantigens. Rheumatoid factor is an antibody that is found in most, but not all people with RA. The ensuing inflammatory cascade involves chemicals that damage cartilage in joints. The development of pannus is a unique feature of RA that differentiates it from other forms of arthritis. Pannus is a destructive vascular granulation tissue that involves the formation of new blood vessels in the synovial membrane. RA can cause both local articular manifestations and systemic symptoms.

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**Nursing Implications:** Nurses are in an optimal position to provide patient education regarding health and specific diseases. Although diet alteration cannot be guaranteed to improve RA symptoms, it has been shown to benefit some patients. As long as the patient understands the stance of current research, diet counseling can still be indicated. First, it will allow the patient to play a role in their own treatment. Second, dietary improvements can increase the prognosis of many other common and dangerous conditions.

**References:**