



RELATIONSHIP BETWEEN ARTHRITIS AND DIABETES

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The relationship between Arthritis and Diabetes is a matter of dispute. The researches show as high as 53% patients are suffering from both ailments. One follows another or vice versa. In our study, we find 48% patients suffering from both ailments. Practically there is no specific treatment for Arthritis except painkillers and for Diabetes administering insulin. The connection between the two is still to be established but there is remarkable similarity between the treatments of the both ailments. The anti malarial drug hydroxychloroquine decreases the risk of diabetes among people with RA. However it is pertinent to note that diet and life style modifications are more effective at controlling both ailments.

Arthritis particularly Rheumatoid Arthritis (RA) is a chronic systemic inflammation involving primarily the synovial membranes and the articular structures of multiple joints. The disease is often progressive and result in pain, stiffness and swelling of joints. In late stages deformity and ankylosis development also occur. [1]

Diabetes is the most common metabolic disorder all over the world. The incidence of the diabetes is showing an alarming rise in developing countries. [2] It is ranked seventh among the leading causes of death, and third when all its fatal complications are taken in to considerations. [3]

Diabetes particularly type2 is caused by over consumption of sugary foods and refined carbohydrates, both of which are highly inflammatory. This inflammation damages the insulin producing beta-cells in the pancreas and also inhibits cells from absorbing glucose i.e. insulin resistance or pre-diabetes. In arthritis wide spread inflammation destroys joint cartilage. So the typical diabetes causing diet can also cause or worsen arthritis. [4]

The people diagnosed with diabetes are nearly twice as likely to have arthritis, and the inactivity caused by the arthritis gets in the way of successfully managing both the diseases. [5] According to American Diabetes Association and Arthritis Foundation,



“about 53% of people with diabetes also have arthritis. There does not seem to be a strong relationship between two diseases but that they also do not seem to avoid each other. Each of these disease benefits from regular exercise and dietary control, despite physical difficulties.

Several researches suggest that a connection between RA and diabetes but the nature of that connection or even whether it’s actually real is unclear. There are tantalizing links between two diseases but at this point they are mainly speculative. [6]

The question arises whether the prevalence of diabetes is increased in patient with RA. Although no studies to date have directly addressed this question, it has been indirectly examined in some of the studies addressing cardiovascular risk in RA. The results of these studies are conflicting. The Han *et al* using a clinic based population, found a significantly higher prevalence of type 2 diabetes in RA patients compared with matched controls. [7]

Lisa Emrich in Health Guide, *Monday, November09,2009* remarkably said that, “RA is an inflammatory disease of immune system which first targets the synovial or the lining of the joints, resulting in pain, stiffness, swelling, joint damage and loss of function. The authors conclude that there is no strong evidence of an association between RA and diabetes and it appears that there is no significant link between developing RA and diabetes. Solomon and colleagues also did not find evidence of an association between RA and DM.

Initially it was thought that both diseases involve immune mechanism but other than this they do not appear to directly influence one another. Both RA and diabetes are auto immune conditions in which a person’s own immune system goes on the attack against the body itself. Dr. Susan Spratt, an endocrinologist at Duke University explains, “when you have one auto immune disease, like RA, you are at risk getting another one like diabetes”. It is theorized that this inflammation may be connected to insulin resistance, which puts people at risk for development of type2 diabetes. People with RA are more likely to have insulin resistance, in which the body does not respond to insulin, the way it should.

RA is an auto immune disease where the immune system defends the body from invading organisms and substances that can cause damage. With RA the body’s



immune system attacks its own joints, resulting in to an ongoing inflammation. Some research suggests that inflammation may also play a role in the onset of diabetes. [6]

The effects of RA may also increase the risks of the diabetes. The people with RA leads sedentary lives due to pain and other RA- related disabilities and when they are physically inactive, they are more likely to be over-weight which is a common risk factor for the diabetes. The inactivity caused by the arthritis interferes with management of both RA and diabetes. According to Dr. Solomon, “if a patient has any modifiable risk factor for diabetes such as obesity, I want to be as proactive as possible”. This means encouraging the patient to eat a healthful diet and get regular exercise. Doing so will help lose weight and reduce the risk of diabetes. [6]

The treatment of RA may also play a role in reducing the risk of diabetes. While steroids can increase diabetes risk, other rheumatoid arthritis medications may actually help lower the risk. Studies show that anti-malarial drug hydroxylchloroquine is associated with a decreased risk of diabetes among people with RA. [6] The anti-malarial drugs may have a role in treating RA not only to suppress inflammation of joint linings but also to reduce the likelihood of developing glucose intolerance and dyslipidemia. [8]

In a study that included nearly 14,000 patients with RA, the use of certain disease modifying anti-rheumatic drugs was found to lower the risk of diabetes, according to a study in the June 21, 2011, Science Daily. Michele Doran MD, FRCPI, Department of Rheumatology, St. James Hospital, Dublin 8, Ireland in his concluding remark says, “given the limitations outlined above, an association between RA and DM has not been ruled out. Further studies would ideally be prospective, use predefined criteria for diagnosis of both RA and DM, and include larger numbers than in the current study.

More than 30% of the people with both arthritis and diabetes live sedentary lives, making both conditions worse. But the Centres for Disease Control research shows beyond a doubt that both conditions significantly improve with life-style changes, especially a healthy diet and moderate exercise. The diabetics are not dying because of diabetes, instead they are dying from diabetic complications. And they will keep dying until they adopt treatment method that heals diabetes at the most fundamental level – using diet and increased physical activities. [4] The activities that do not stress



the joints, like, swimming, walking, aqua exercises, stretching, yoga, golf, tai chi, etc. [4]

Several studies indicate that diet and life-style modifications are far more effective at controlling – even reversing – type 2 and pre-diabetes than conventional drugs. At UCLA school of Medicine it was found that type 2 patients were able to completely reverse their diabetes in just three weeks by using a simple, inexpensive and utterly nondrug approach. [11] Another clinical study showed this same approach to be twice as effective when tested head – to – head against today’s leading type2 drug, glucophage [4].

The above discussion indicates that the direct relationship between RA and diabetes is still to be established but there is remarkable similarity in the treatment of both. The physical exercise, yoga, along with diet control has a vital role in controlling both ailments. The latest concepts of ‘Yogic Therapy’ which includes ‘Yoga’, ‘Naturopathy’, and ‘Yogic Diet’ further confirm the relationships of the two where both ailments are treated on the same guidelines.

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