



Future Method of Diagnosis and Treatment of Arthritis

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Abstract: Arthritis is considered a common non-contagious disease, but it is widespread. There are different types of arthritis, most notably rheumatism and rheumatoid arthritis. The least influential and the most difficult type in diagnosis is joint influenza. In this study, Arthritis (joint influenza) is investigated as a separate case and compared with other joint infections. After careful diagnosis and identification of its causes and symptoms, this type of arthritis was found to have symptoms of both rheumatism and rheumatoid arthritis. A therapeutic method was considered as the method of diagnosis with a special diet.

Keywords: Arthritis, Rheumatism, Rheumatoid Early Treatment, New Criteria, Outcome, Regression etc.

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INTRODUCTION

Arthritis is the swelling and tenderness of one or more joints. The main symptoms of arthritis are joint pain and stiffness, which typically worsen with age. The most common types of arthritis are osteoarthritis and rheumatoid arthritis. Osteoarthritis causes cartilage the hard, slippery tissue that covers the ends of bones where they form a joint to break down. Rheumatoid arthritis is a disease in which the immune system attacks the joints, beginning with the lining of joints. Uric acid crystals, which form when there's too much uric acid in your blood, can cause gout. Infections or underlying disease, such as psoriasis or lupus, can cause other types of arthritis. Treatments vary depending on the type of arthritis. The main goals of arthritis treatments are to reduce symptoms and improve quality of life [1].

The technological development and industrial progress we are witnessing are accompanied with the spread of diseases and the emergence of new pathological types. It is either

difficult to treat the disease or control the appeared symptoms of previous diseases that have been controlled. Rheumatoid arthritis which is an autoimmune disorder occurs when the immune system accidentally attacks body tissues. It is clinically diagnosed and as it is known, there is no cure for rheumatoid arthritis yet. However, it is possible to live a long and active life with this disease if appropriate treatment of rheumatoid arthritis is adopted. It can be done through early and accurate diagnosis in addition to taking the appropriate doses of the improved medications for rheumatism under close observation. It infects about 25 men and 54 of women among the 100,000 population [2-5].

There is another type – Juvenile Idiopathic arthritis (JIA) - that affects children before puberty. This type of disease is one of the rare diseases that infect 1-2 children among 1000 children. The cause of this disease (JIA) is still unknown and may be related to genetic factors. This type is treated through a combination of pharmacological

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interventions, physiotherapy, and psychotherapy [6]. Some joint diseases are caused by an autoimmune disorder such as rheumatism in which the immune system attacks the joints of the human being by mistake, causing overtime destruction of cartilage and joint deformation [7].

In this research, one of the arthritis diseases will be dealt because of its spread significantly between the young and old. I will work to give a dose of Amoxicillin to patients of different ages (25-65), with a diet course. Application of biochemical markers, which are able to sensitively detect ongoing joint damage, may facilitate the appropriate use of targeted therapy in RA and help reduce the progression of joint damage in these patients [8].

It is hoped that we will be able to class TNF inhibitors as personalized medicine if we are able to find biomarkers which safely and reliably predict response to these drugs in an individual; however, studies to date have been unable to find a single marker which predicts response to TNF inhibitors [9]. If we are able to accurately predict response to biologics then we may be able to achieve better control of RA in a more cost-effective manner [10] as the minimal required drug dose for disease control could be calculated from biomarker levels. The advent of highly efficacious targeted therapies and a treat-to-target approach to management, the outlook for people presenting with RA has improved dramatically within one generation [11].

RESULTS AND DISCUSSION

In the literature search many studies about rheumatoid arthritis were found but only few had data evaluating the methods for early diagnosis and the treatment strategies to reduce the progression of the disease. Rheumatoid arthritis (RA) is an autoimmune inflammatory progressive disorder which in the absence of appropriate treatment can lead to joint destruction and disability in the long run. Prognosis of RA may be predicted based on the presence of clinical and laboratory evidences. New criteria for classification of RA provide opportunity for earlier treatment. Hence this article reviews the importance of early diagnosis and treatment of rheumatoid arthritis.

CONCLUSION

The early diagnosis of RA remains the need of the hour. Studies have reported the methods for early diagnosis and the treatment strategies to reduce the progression of rheumatoid arthritis. IgM – RF and CCP assays are noted to emerge as the screening assays superior to other RF isotopes. ^{99m}Tc-3PRGD2 is a promising agent for the early diagnosis of rheumatoid arthritis. Coming to

treatment, sustained improvement in signs and symptoms of RA and improvements in physical function must be the outcome. Apart from the use of conventional DMARDs, the safety profile of tofacitinib was better than many other drugs. The authors recommend the studies involving tofacitinib among people of different ethnic groups.

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REFERENCES

1. <https://www.mayoclinic.org/diseases-conditions/arthritis/symptoms-causes/syc-20350772>
2. Vallbracht, I., & Helmke, K. (2005). Additional diagnostic and clinical value of anti-cyclic citrullinated peptide antibodies compared with rheumatoid factor isotypes in rheumatoid arthritis. *Autoimmunity Reviews*, 4(6), 389-394.
3. Yang, D., Li, H., Zhang, S., Yang, G., Liu, S., & Liu, Z. (2020). Clinical analysis of blood markers and imaging for diagnosis and prognosis of rheumatoid arthritis.
4. Wu, Y., Zhang, G., Wang, X., Zhao, Z., Wang, T., Wang, X., & Li, X. F. (2017). Early detection of rheumatoid arthritis in rats and humans with ^{99m}Tc-3PRGD2 scintigraphy: imaging synovial neoangiogenesis. *Oncotarget*, 8(4), 5753-5760.
5. Neubauer, A. S., Minartz, C., Herrmann, K. H., & Baerwald, C. G. (2018). Cost-effectiveness of early treatment of ACPA-positive rheumatoid arthritis patients with abatacept. *Clin Exp Rheumatol*, 36(3), 448-454.
6. Miura, M., Hagiwara, S., Nakamura, J., Suzuki, M., Lee, T., Kobayashi, T., ... & Ohtori, S. (2019). The current situation of the treatment of rheumatoid arthritis in Chiba University Orthopaedic department. *Chiba Medical J*, 95, 27-32.
7. Wollenhaupt, J., Lee, E. B., Curtis, J. R., Silverfield, J., Terry, K., Soma, K., ... & Cohen, S. (2019). Safety and efficacy of tofacitinib for up to 9.5

- years in the treatment of rheumatoid arthritis: final results of a global, open-label, long-term extension study. *Arthritis research & therapy*, 21(1), 1-18.
8. Karsdal, M. A., Woodworth, T., Henriksen, K., Maksymowych, W. P., Genant, H., Vergnaud, P., ... & Bay-Jensen, A. C. (2011). Biochemical markers of ongoing joint damage in rheumatoid arthritis-current and future applications, limitations and opportunities. *Arthritis research & therapy*, 13, 1-20.
 9. Simsek, I. (2012). Predictors of response to TNF inhibitors in rheumatoid arthritis: do we have new tools for personalized medicine?. *Bulletin of the NYU Hospital for Joint Diseases*, 70(3), 187-190.
 10. Isaacs, J. D., & Ferraccioli, G. (2011). The need for personalised medicine for rheumatoid arthritis. *Annals of the rheumatic diseases*, 70(1), 4-7.
 11. Taylor, P. C., & Pope, J. (2019). Treating to target or treating the patient in rheumatoid arthritis?. *The Lancet Rheumatology*, 1(1), e8-e10.