

PP08

Juvenile rheumatoid arthritis in mono-zygotic twins

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Cite: Journal of Global Medicine 2024, 4:S1 - <http://dx.doi.org/10.51496/jogm.v4.S1.187>

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Abstract

Aim: To describe the rate of juvenile idiopathic arthritis progression and to determine the degree of responsiveness to methotrexate and adalimumab management in mono-zygotic twins with a methylene tetrahydrofolate reductase gene mutation.

Methods: The study was a 5-month, twin concordance study. This includes a retrospective study of medical records, activity and severity of the disease, complications, which included an objective clinical examination of the patient, based on an assessment of the severity of the disease using the disease activity score calculator for rheumatoid arthritis (DAS: 28), liver function test, and folate cycle enzyme.

Results: Based on the study conducted, mono-zygotic twins with the same form of arthritis, which began at the same age with the same manifestation syndrome and joint disease, combined with the same folate cycle mutation, with similar treatment regimen had different degrees of disease progression and severity. The first twin had a complication of toxic hepatitis and a concomitant autoimmune thyroiditis. The second twin had a more serious progression with small joints ankylosis.

Conclusion: The study shows that monozygotic twins with juvenile idiopathic arthritis with a similar defect in the folate cycle enzyme had different rates of disease progression of varying severity and joint damage. Consequently, this requires further study in monozygotic twins with juvenile rheumatoid arthritis.

Keywords: *juvenile rheumatoid arthritis; monozygotic; twinning; folate cycle*

Reference

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