Effectiveness, tolerability, and safety of subcutaneous methotrexate in early rheumatoid arthritis: A retrospective analysis of real-world data from the St. Gallen cohort

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INTRODUCTION
Methotrexate (MTX) is the cornerstone of rheumatoid arthritis (RA) treatment. Recently updated recommendations by the European League Against Rheumatism (EULAR) show MTX as an important part of the first-line strategy in patients with active RA. The study presented here aimed to assess the clinical effectiveness and tolerability of subcutaneous (SC) MTX among patients with RA.

METHODS
Patients with RA who were naïve at baseline to both conventional and biologic disease-modifying antirheumatic drugs, fulfilled the American College of Rheumatology/EULAR 2010 criteria, and had one or more follow-up visits were selected through sequential chart review for analysis of retrospective data. Patients received SC MTX at varying doses (10-25mg per week). The primary end point was a change in the Disease Activity Score including 28 joints (DAS28); secondary end points included time to employment of the first biologic agent and cumulative MTX doses.

RESULTS
Overall, 70 patients were in follow-up for a mean of 1.8 years after initiating SC MTX treatment. During this time, 37 (53%) remained on SC MTX without any biologics (MTX-only) and 33 (47%) required the addition of a biologic therapy (MTX-biol). Biologic therapy was required after a mean ± SD of 387 ± 404 days. Mean weekly MTX doses were 17.4mg for patients in the MTX-only group and 19.1mg for patients in the MTX-biol group. Mean baseline DAS28 were similar for patients in the MTX-biol and MTX-only groups (4.9 and 4.7, respectively). Both low disease activity state (LDAS) and remission were achieved by slightly fewer patients in the MTX-biol than MTX-only groups (LDAS, 78.8% vs 81.1%; remission, 69.7% vs 75.7%). Over the full course of the study period, SC MTX was discontinued in 32 patients (46%). Among those who discontinued, the most common reasons were gastrointestinal discomfort (n = 7), lack of efficacy (n = 7), and disease remission (n = 3). Severe infections occurred in 3 patients in the MTX-biol group and 3 patients in the...
MTX-only group.

CONCLUSIONS
SC MTX is a safe and effective treatment option for patients with RA. SC MTX resulted in high rates of remission and LDAS in early disease, over prolonged periods of time, it, therefore, may extend the time before patients require initiation of biologic therapy.