Austin Journal of Orthopedics & Rheumatology

Open Access

Austin Publishing Group

Editorial

Cost Effective Use of Biological Therapy in Indian Scenario

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Received: October 12, 2017; **Accepted:** October 30, 2017; **Published:** November 06, 2017

Introduction

The use of biological therapy in rheumatology and other practices is on rise in recent years, which attributable to many factors, firstly increased awareness of their use among doctors, among patients and in medical literature with time. Secondly availability of these agents at relatively less cost than earlier since the introduction of biosimilars. Currently there is no definitive consensus for the duration of therapy and about when to stop. Their cost effectiveness can be increased by proper and timely tapering particularly in low economic countries like India. There are some studies [1-4] available regarding tapering and withdrawing of biologicals in rheumatoid arthritis and other rheumatological illness.

Study Methodology

We done this retrospective study, done from March 2016 to July 2017, at single tertiary care centre in Noida, India, where 36 patients between the age of 15 to 85 years with different rheumatological diseases having poor response or dissatisfaction with first line medicines and who has received biological therapy were included in the study.

Results

Demographic and clinical parameters were evaluated as follows:

Demographic profile: Average age of study population was 50.86 years, 58.33% patients were female. Rheumatoid arthritis was most common primary diagnosis in 47.22% cases, followed by spondyloarthritis in 44.44% cases and 8.33% other cases. Average duration of diseases was 8.83 years, average duration of first line treatment before biological therapy was 5.75 years.

Biologicals used in the study population: Anti-TNF was the most common class of biologicals used in 77.77% of cases (etanercept in 47.22%, adalimumab in 25%, infliximab in 5.55%). Rituximab was used in 19.44% cases and secukinumab in one case. Average duration of biological therapy was 15.92 months.

Biological tapering and possible stopping: Biological tapering was successfully done in 33.33% of cases (in 22.22% of cases dosing interval increased and 11.11% cases were able to stop biological). Biologicals stopped in 22.22% of cases (due to successful tapering in 11.11% cases, biological failure in 5.55% cases and side effects in 5.55% cases).

Response to treatment: Response to treatment was earliest and most sustained with rituximab. Biological failure occurs in 5.55% (n=2) of cases, one primary failure with adalimumab in rheumatoid arthritis, and one secondary failure with etanercept in psoriatic arthritis, which then treated with secukinumab.

Side effects: Minor side effects were noticed during rituximab infusion in two cases with throat irritation and chocking sensation while infusion, which got subsided with decreasing the infusion rate. Major side effect which leads to stopping the medicine were observed in two cases, one etanercept (non-healing cellulitis) and one adalimumab (non tubercular lymphadenopathy). Overall toxicity was low and manageable.

Conclusion

We can conclude that wiser use of biological agents can help to stop and taper the biologicals in cost constrained settings.

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Citation: Jagdish RK. Cost Effective Use of Biological Therapy in Indian Scenario. Austin J Orthopade & Rheumatol. 2017; 4(3): 1057.