Rituximab for Treatment of Aggressive Multiple Sclerosis During Pregnancy: A Case Series
Jessica Rice¹,²
¹Dept of Neurology, Oregon Health & Science University, ²Dept of Neurology, Portland VA Health Care System

Objective:
To highlight two cases where multiple sclerosis (MS) disease activity paradoxically increased during pregnancy. Due to disabling symptoms and concern for further relapses during pregnancy, the patients were treated with rituximab. Their clinical course was followed through delivery. This case series will discuss the risks of rituximab treatment to the infant, a review of the literature, and will report the outcome of the pregnancies. It is important to report these outcomes to help guide future clinical decision making.

Background:
During pregnancy, the rate of MS relapse traditionally declines, reaching a nadir during the third trimester. The risk of relapse increases in the first 3 months post-partum, before returning to pre-pregnancy levels in months 4-6. The use of disease modifying therapy (DMT) during pregnancy is controversial as safety data is limited. Many patients stop DMT, and careful risk/benefit discussions are required when choosing to start or continue therapy. However, a minority of patients can experience severe relapses during pregnancy that may warrant treatment with DMT.

Design/Methods:
N/A

Results:
The first patient treated with rituximab during the third trimester showed improvement in symptoms over several weeks, and her infant was born at term with no complications. The second patient was treated with rituximab in the early second trimester and has similarly showed symptom improvement. She is currently in the third trimester, but no complications with her pregnancy have been identified so far.

Conclusions:
Treatment of aggressive multiple sclerosis with rituximab during pregnancy has risks, but may be safe and effective in the right clinical context.