NMO immunosuppression should be withheld in pregnant patients: con position

B. Weinshenker
Neurology, Mayo Clinic, USA

Traditionally, immunosuppressive medication has been withheld in patients with MS and many other autoimmune disease because of potential teratogenic risks to the fetus and possibly because of additional risks to the mother who is already in a somewhat immunosuppressed state because of pregnancy. However, neuromyelitis optica spectrum disorders (NMOSD) are an exception, although not the only exception, to this general rule about the use of immunosuppressant's during pregnancy. The principal target antigen of NMOSD, aquaporin-4, is expressed in placenta, especially in early pregnancy. A number of pregnancy-related complications occur at significantly increased frequency in patients with NMOSD, such as spontaneous abortion and preeclampsia. While the risk of a relapse during pregnancy is reduced in MS, it does not seem to be the case in MS, and, as is the case for MS, the risk of relapse is greatly increased postpartum. Unlike MS where relapses tend to be mild and generally self-limited or easily treated with a brief course of corticosteroids, NMOSD attacks are often severe, leave permanent sequelae and may require complex treatments such as plasma exchange. Use of certain effective immunosuppressants such as azathioprine and rituximab that are widely used to prevent attacks of NMOSD appears to be relatively safe and well tolerated to mother and infant when administered either immediately before conception or continued throughout pregnancy. For these reasons, in patients with recently active NMOSD, immunosuppression should be administered with either azathioprine or rituximab throughout pregnancy.