P030

Fingolimod (Gilenya) may improve the chances of conception in women with multiple sclerosis (MS) associated with secondary infertility

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Background: Fingolimod is sphingosine-1-phosphate (S1P) receptor modulator which is indicated in patients with relapsing remitting multiple sclerosis (RRMS) and it is contraindicated in pregnancy. Many RRMS patients has infertlity due to many pathological factors at hormonal and immunological levels as well as hypthalamic dysfunction. Objectives: We report five women with RRMS and secondary infertlity who lost hope of conceiving so they took Fingolimod without any contraceptive measures. They conceived and three gave birth to normal babies and two expected to deliver in few months.

Methods: Between 2010 and 2014, 148 patients with RRMS received Fingolimod, 112 were females. Five of them conceived after 3–7 years history of infertility and none of them used any assessed measures for conception or contraception assuming that they are infertile and each of them has 2–5 children in the past. Local gynecological causes were excluded. Three of them have autoimmune thyroid disease. They were aged 25–40 years with 2–12 years duration of RRMS. Their EDSS ranged from 1.0 to 4.0. They received fingolimod 0.5 mg daily for 5 months to 2 years prior to becoming pregnant. Fingolimod was discontinued 3–8 weeks after conception. Three patients gave birth to normal babies and the other two expected to deliver in few months.

Results: We identified five women with RRMS and secondary infertility who conceived after taking Fingolimod. They were infertile for 3–7 years. We suggest that Fingolimond may improve chances of conception in some infertile women at hormonal and immunological levels. They may have antibodies affecting the fertilization process, and Fingolimond may modulate and prevent this process. Also it may work at hpothalamic level.

Conclusion: Fingolimod may improve conception in women with RRMS and secondary infertility. It may work at hormonal and immunological levels. The exact mechanism is unknown. SIP receptors exist in the CNS but it is not known if they have any role in the fertilization process. Further studies are recommended.