LETTER TO THE EDITOR

Using atosiban in uterine contractions of early pregnancies after assisted reproduction

To the Editor,

We are interested in a randomized trial of oxytocin antagonist atosiban versus β-adrenergic agonists in the treatment of spontaneous preterm labor in Taiwanese women reported by Lin et al in the June 2009 issue of the Journal of the Formosan Medical Association. In that study, atosiban was showed to be an effective tocolytic drug without the conventional cardiovascular side-effects. They enrolled the cases from gestational age of 24–33 weeks. In Taiwan, 8354 assisted reproductive technology (ART) cycles were performed in 2008, leading to 36.5% clinical pregnancies, but only 27.1% live births. We noticed that the first- and second-trimester bleeding was more prevalent in ART than in spontaneous pregnancies. In a large series study in Belgium, of 2450 clinical pregnancies (not biochemical or ectopic), 772 presented with first-trimester bleeding (31.5%), and ultimately 436 miscarried (56.5% of patients with first-trimester bleeding). It is not uncommon to find regular uterine contractions before 20 weeks. In a recent meta-analysis, nifedipine is superior to β2-adrenergic-receptor agonists and magnesium sulfate for tocolysis in women with preterm labor (20–36 weeks), but it has been assigned to pregnancy category C by the Food and Drug Administration (FDA) so is not recommended before 20 weeks, or even in the first trimester. A recent report showed, even at very early pregnancy, atosiban can be used to decrease the frequency of uterine contractions to enhance success of pregnancy. For cases of early pregnancy with vaginal bleeding, if uterine contractions are noted either by ultrasound (in the first trimester) or on tocotometer (in the second trimester), what can we do in addition to traditional bed rest and progesterone supplements? From 2004 to 2010, we treated 33 first-trimester pregnancies with vaginal bleeding after ART with evident uterine contractions using ritodrine and/or atosiban, and there was no preterm delivery before 30 weeks. This seems to be much better than was reported in the Belgian study, in which abortion rates were 56.5%. However, we may need a larger, prospective randomized study to prove the effectiveness of tocolysis in such high-risk cases of threatened abortion.

References


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24 August 2011