EDITORIAL COMMENT

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Oxidative Stress Markers in Tubal Ectopic Pregnancy: Editorial Comment

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An editorial commentary entitled "Oxidative Stress Markers in Tubal Ectopic Pregnancy" and attributed to the article numbered DOI: 10.5336/jcog.2017-59571.

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Ectopic pregnancy is defined as pregnancy located outside the uterine cavity but this definition needs to be revised as cornual pregnancy, scar pregnancy are pregnancies located inside the uterus but at locations that are not suitable for implantation and proper trophoblastic invasion. Ectopic pregnancy occurs in 1-2% of all pregnancies although the incidence shows variation in different populations.[1,2]

The most common site is the fallopian tube as tubal ectopic pregnancy constitutes 98% of all ectopic pregnancies. The risk factors for tubal ectopic pregnancy are tubal damage related to infection or tubal surgery, assisted reproductive techniques and smoking. It is speculated that either the changes in the tubal environment leads to implantation to the tubal wall or the tubal transport of the embryo is impaired and the embryo fails to reach to the uterine cavity.[3] A large German study showed that prior ectopic pregnancy, previous genital surgery and endometriosis were risk factors for tubal ectopic pregnancy.[4] Tubal smooth muscle contractility and ciliar activity are major known factors that effect the tubal transport of the embryo. Nitric oxide plays an important role in regulating the cilier activity. Inflammation besides effecting the antioxidant status and altering ciliary movements and the muscle contractility, also has a de-ciliating effect on the ciliar cells. Sex-hormone receptors, leukemia inhibiting factor, interleukin-1, interleukin-8, uteroglobulin, HOXA-10, Integrins, VEGF, Mucin 1, trophinin, activin, oxidative stress are potential factors that are thought to contribute to formation of tubal ectopic pregnancy.[4,5] Further studies are required in order to understand the complex etiology of tubal ectopic pregnancy.

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