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Cervical Pregnancy: Risk Factors and findings

Abstract:

Implantation of pregnancies in cervix (CEPs) is rare, comprising less than 1% of ectopic pregnancies. As rich cervical vascularity in pregnancy, there is a marked increase in the potential of hemorrhage following the CEP leading to mortality, morbidity, and infertility experienced by the implicated women. Diagnosis of CEPs is difficult and get identified at later gestational ages. it is a consequence of Assisted reproductive technology (ART); while definitive risk factors are not fully known. Possible risk factors include cervical and uterine anomalies, previous curettages or cesarean sections, smoking, tubal factor infertility, or In vitro fertilization (IVF) treatment. Our analysis of literature in 200 patients; while was restricted to case series retrospective studies, showed that a history of previous C-section, uterine curettage or D&C procedures, and history of



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using Assisted reproductive technology might be some potential risk factors. The increasing application of Hegar dilators was hypothesized as the cause of the rise in CEPs. Dilation and curettage (D&C) might also make the subject vulnerable to CEP development in the future. Previous D&C history is a risk factor that is common among CEP patients. In this review, we critically reviewed these potential risk factors. As CEP rarity, it is difficult to predict as well if the risk of their recurrence is elevated.

Keywords: Cervical Ectopic Pregnancy, Cervix, Risk Factor, Ectopic Pregnancy

Introduction:

Ectopic pregnancy (EP), also known as extrauterine pregnancy (EUP), happens when a blastocyst gets implanted somewhere outside the uterine. Most cases of EP are blastocyst implantation in the fallopian tube [2-4], where embryo development ceases in most cases; while embryonic development might lead to severe and critical symptoms of patients. The ovarian (3.2 %) and abdominal (1.3 %) sites are the next most prevalent implantation sites [5]. This is a major source of morbidity and death in women when a tubal rupture happens that is associated with severe intra-abdominal bleeding, and if the patient gets survived, there is a potential risk of infertility in the future [6-8]. As a result, it's a medical emergency that has to be treated right away [9]. Over the last 30 years, the yearly incidence of EP has risen [10]. Pregnancy-related fatalities account for 4–10% of all deaths in the Western world [11, 12]. Despite advancements in diagnostic technologies that have enabled earlier detection, it is still a life-threatening illness. EP is responsible for approximately 75% of first-trimester fatalities and 9% of all pregnancy-related deaths [8].

Epidemiology:

In the United Kingdom, around 10,000 people are diagnosed with EP each year. EP is more common in the UK (11.1/1,000 pregnancies) than in other north European nations and Australia [17-19]. In the United Kingdom, epidemiological data since 1994 shows that the EP rate and its associated mortality has been constant, where, 0.35 deaths per 1,000 EP were happening from 2003 till 2005 [15]. French population research conducted from 1992 to 2002 revealed that the rate of reproductive failure EP rose by 17% throughout the study period. According to the Al-Turki study, there is an upward tendency in EP in eastern nations such as Saudi Arabia [16]. The prevalence of ectopic pregnancy in Iran was assessed in a meta-analysis study by Hassani et al. in 2016, in which in the years before 2006 was 1.9 EPs in 1000 pregnancies, which has increased compared to the prevalence of 3.7 EPs in 1000 pregnancies after 2006 [17]. To have better insight into the issue, all other types of Eps and their known risk factors are discussed in this review, finally focusing on CEP.

Ectopic pregnancy classification