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Caesarean section scar endometriosis: *quo vadis*?

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Endometriosis is characterized by the presence of endometrial tissue implants outside the uterine cavity that responds to hormonal stimulation. These implants can be detected in all areas surrounding the uterus, ovaries, posterior cul-de-sac, ligaments of the uterus, pelvic peritoneum, and rectovaginal septum. Endometriosis may be infrequently found in the thorax, gastrointestinal tract, appendix, urinary tract, central nervous system, nose, umbilicus, lower limbs, and cutaneous cellular tissues. Caesarean scar endometriosis, *id est*, the cutaneous endometriosis, is the most common extrapelvic form, *vulgo*, and is located in scars following obstetric and/or gynecologic surgical procedures, such as caesarean delivery, hysterotomy, hysterectomy, episiotomy, ectopic pregnancy, salpingostomy, and tubal ligations, but scarcely in scars following appendicectomy, in the laparoscopic trocar and amniocentesis needle tracts. Diagnosis of surgical scar endometriosis following caesarean section, possessing an incidence of 0.03–0.4%, is not an easy process due to being often mistaken for a suture granuloma, lipoma, abscess, cyst, desmoid tumors, malignancies, incisional hernia, or a strange body[1-5]. Cellular transport theory, coelomic metaplasia theory, and the endometrial tissue reaching the surgical scar through the lymphatic or vascular pathways in order to develop into scar endometriosis afterward are accused and argued in the pathophysiology of the disease, to date[5]. Although mass in a caesarean section scar with symptoms of cyclic pain associated with menstruation is nearly pathognomonic, imaging modalities assist in identifying the condition. In spite of all odds, histopathologic evaluation is the major tool for confirmation[1-4]. Surgical scar endometrioses are known as possessing a potential for the progression of transformation, which rarely transpires for the malignant degeneration, accounting for 0.3–1%[1,6]. Herein, the interval of time from the onset of the benign lesion to the development of malignant form in caesarean section scar endometriosis has been defined as a broad variation, ranging from 3 to 39 years with a mean of 17 years[1,7]. In the upfront surgery setting, in particular, wide surgical excision with a safety margin with or without reconstruction has been recommended for the surgical procedures of endometriosis, *per se,* the gold standard treatment of choice[1,6]. As well as to avoid the possible transformation, some authors recommend a wide excision with at least 10 mm margins in order to prevent the recurrence[6]. Some authors recommended surgical resection with margins at least 5 mm in diameter and depth[8,9]. Although the pathogenesis of endometriosis is not precisely known, immunologic factors, metaplasia, and confounding factors such as diagnosis of endometriosis before the first delivery, breastfeeding, previous surgery, and hormonal contraception are important. Theoretically, pregnancy, *per se*, a state of the altered immune response, and caesarean section could augment the risk of developing endometriosis. Some authors emphasized that the cases with two caesarean sections did not augment the risk of being diagnosed with endometriosis, compared with one caesarean section. In addition, it was stated that those who diagnosed with caesarean scar endometriosis after the first caesarean section are no longer at risk of developing endometriosis for the first time. *Inter alia,* some authors proclaimed that caesarean scar endometriomas are more common after unlabored caesarean sections[10,11]. *In fine, bene diagnosticur, bene curatur. Reddite ergo quae sunt Caesaris, Caesari.*

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AUTHORS' CONTRIBUTIONS

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