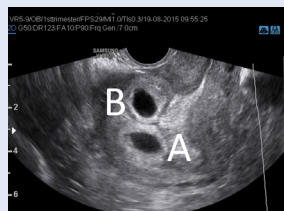


# Successful treatment of spontaneous heterotopic caesarean scar pregnancy by local potassium chloride injection with preservation of the intrauterine pregnancy

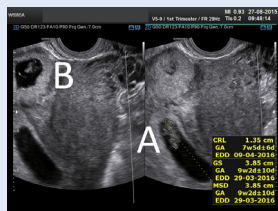
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Heterotopic caesarean scar pregnancy (CSP) is a coexistence of an intrauterine pregnancy with an ectopic pregnancy located in a caesarean scar. There are no universal treatment guidelines to manage this extremely rare condition. Vaginal bleeding is the most common symptom of heterotopic CSP, but most of the cases are asymptomatic. The management of heterotopic CSP is difficult especially in patients who want to preserve the intrauterine pregnancy. A 33-years-old patient, one caesarean section (CS) in history, at 6 weeks of gestation was admitted to the hospital to confirm the diagnosis of ectopic pregnancy. On transvaginal ultrasound a heterotopic pregnancy was visualized. One gestational sac (GS) was located within the uterus cavity, another one was implanted in the anterior wall of cervicoisthmic area in the caesarean scar (Fig. 1). In both embryos the foetal heart rate was observed, the crown-rump length was 3.4 mm in the intrauterine pregnancy and 2.4 mm in the heterotopic CSP. The cervical canal was closed and measured 49 mm in length. There was no bleeding on the speculum examination. The patient was asymptomatic. Several treatment options were described in the literature: embryo aspiration of CSP, systemic or local injection of methotrexate, local injections of potassium chloride (KCl) or hyperosmolar glucose, laparoscopy or hysteroscopy. After being informed about the high risk of continuing the heterotopic CSP and possible complications of treatment, the patient decided to preserve the intrauterine pregnancy (IUP) and terminate the heterotopic CSP. Selective embryo termination was performed at 7 weeks of gestation by local ultrasound guided injection of KCl into the GS implanted in the caesarean scar. After the procedure the foetal heart rate was no longer visible in the heterotopic CSP, but confirmed in the IUP. Further pregnancy course was normal (Fig. 2) and there were no ultrasound abnormalities in the caesarean scar area (Fig. 3). The patient delivered a 3060g healthy male infant by elective CS at 37 weeks of gestation. The procedure and the puerperium were not complicated. During the CS only a minimal dehiscence was seen in the previous caesarean scar area (Fig. 4). Heterotopic CSP should be considered in patients with a CS in history, especially in cases where assisted reproductive technologies were used. Early diagnosis is the essential part of heterotopic CSP treatment. Transvaginal ultrasonography seems to be the ideal tool to detect heterotopic CSP in the 1<sup>st</sup> trimester. Early detection and treatment of heterotopic CSP increases the probability of preserving the IUP.



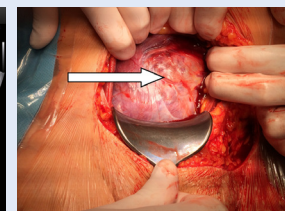
**Figure 1.** Transvaginal ultrasonographic images of IUP (A) and ectopic CSP (B) at 6 weeks of gestation



**Figure 2.** Transvaginal ultrasonographic image of preserve foetus (A) at 9 weeks of gestation. The heterotopic CSP is still visible (B)



**Figure 3.** A normal caesarean scar (arrow) was seen at 33 weeks of gestation during an ultrasound examination



**Figure 4.** A minimal dehiscence (arrow) was seen during the caesarean section performed at 37 weeks of gestation

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