



Atypical course of a caesarean scar pregnancy

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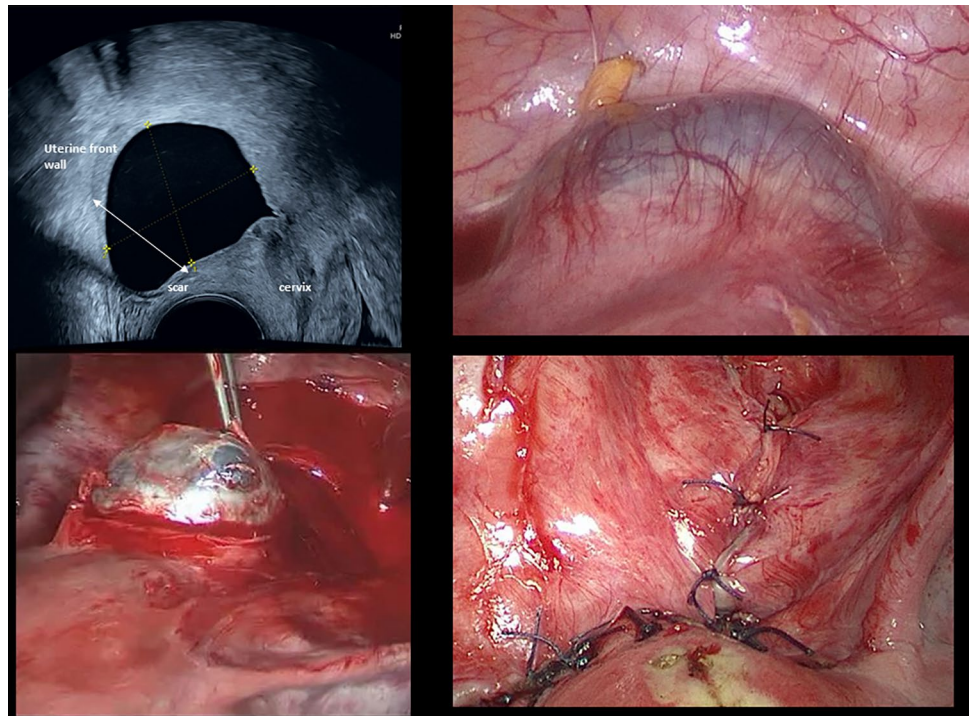
The 36-year old patient presented first with a caesarean scar pregnancy (vital) at 7 weeks of gestation. In her medical history, she had 2 miscarriages (10/21 and 12/21) without curettage and a caesarean section (Misgav-Ladach) in 2019. Ultrasound revealed a vital pregnancy in the caesarean scar while large parts of the trophoblast have grown into it reaching up to the serosa (β -HCGlevel: 26873U/l). Due to the risk of bleeding, a therapy with methotrexate was initiated and was administered intravenously, mifepristone was applied orally once [1]. The sonographic check-up (9th gestational week) detected a non-vital pregnancy with a chorionic cavity of 2.8 cm. Three weeks later and after application of methotrexate (2 courses) the sonographic check-up revealed the embryonic structures in regression and a decreasing perfusion by Doppler sonography. At the same time, a discrete progression of the chorionic cavity was noted (size: $3.4 \times 3.2 \times 2.3$ cm), while the β -HCGlevel dropped to 2348U/l. Another 2 weeks later, the ultrasound

check-up detected no more embryonic structures, a significantly reduced blood flow and a thinned trophoblast ring. β -HCGlevel dropped down (429U/l). Despite the serologically and sonographically visible reduction in vital tissue, the chorionic cavity increases in volume at the isthmo-cervical junction with a size of $4 \times 3 \times 3$ cm. At 16th gestational week and after a total of three courses of methotrexate (i.v.), no further progression of the cystic structure was detected in the ultrasound check-up (β -HCG level: 116U/l) (Fig. 1a) [2]. Due to the progression of the cystic structure despite methotrexate administration, a curettage with simultaneous laparoscopic control was scheduled [3, 4]. The isthmo-cervical lesion was confirmed laparoscopically (Fig. 1b) [5]. Due to the increased risk of bleeding, the lesion was removed by laparotomy (Fig. 1c and d) followed by uterine reconstruction (blood loss: 400 ml) [6]. The histology report revealed diagnosis. The patient was discharged home a few days later with no complaints (Fig. 1).

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Fig. 1 **a** Transvaginal ultrasound image of caesarean scar pregnancy with a cystic structure of 4×3×3 cm of a non-vital pregnancy at 15th week of gestation. Anatomic structures are labelled. **b** By laparoscopy: detection of the cystic structure sized 4×3×3 cm at the isthmo-cervical junction. **c** Situs of open surgery with demonstration of the above mentioned cystic structure at the isthmo-cervical junction. **d** Uterine reconstruction after removing the lesion



Author contribution KS: data analysis, manuscript writing/editing and data collection or management; SK: data analysis and data collection or management; BK: data analysis, manuscript writing/editing and data collection or management; MH: data analysis and data collection or management and CB: data analysis, manuscript writing/editing and data collection or management

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Declarations

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Consent to participate The authors affirm that human research participants provided informed consent for publication.

Consent to publish The authors affirm that human research participants provided informed consent for publication of the images in Fig. 1a–d.”

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