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Case Report

Acute presentation of caesarean scar pregnancy at 19 weeks with hemorrhage and anemia: a case of successful surgical intervention

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ABSTRACT

Caesarean scar pregnancy (CSP) occurs when an early pregnancy implants on myometrial tissue previously disrupted by a caesarean section (CS). As primary CS rates increase and vaginal deliveries post-CS decrease, CSP has become more prevalent, accounting for 6.1% of all "ectopic" pregnancies. CSP is now recognised as a possible precursor to placenta-accrete spectrum disease (PASD). Unlike tubal ectopic pregnancies, CSP may progress, and successful deliveries have been reported, though no consensus on optimal treatment exists. A 38-year-old G3P2A0 presented at 19 weeks' gestation with abdominal pain and vaginal bleeding. Ultrasound confirmed a CSP with a 19-week foetus and no heartbeat. Given the low haemoglobin level (7.2 g/dl) and clinical findings, an emergency laparotomy was performed, revealing placenta implantation at the caesarean scar. The foetus had demised, and the patient underwent bilateral pomeroy tubectomy and blood transfusion. CSP management varies, with surgical intervention often required to prevent severe complications. Early diagnosis and a multidisciplinary approach are essential, with treatment decisions guided by residual myometrial thickness (RMT) and the patient's fertility goals. While literature suggests that surgical intervention is generally safer, the optimal treatment approach for CSP remains undetermined, necessitating further research and standardised guidelines.

Keywords: Caesarean scar pregnancy, Placenta accreta spectrum disorder, Residual myometrial thickness

INTRODUCTION

Caesarean scar pregnancy (CSP) is the result of an early pregnancy implantation on myometrial tissue that was previously disrupted by a caesarean birth or a CSD.[1] As a result of the increase in primary caesarean sections (CSs) and the decrease in vaginal deliveries following prior CS, which now account for 6.1% of all "ectopic" pregnancies, the prevalence of CSP is rising.[2] Although there are dangers involved with this non-interventional strategy, there is accumulating evidence that CSP is an entity in the continuum leading to placenta-accrete spectrum disease (PASD). In contrast to a tubal ectopic pregnancy, a CSP may progress, and successful deliveries have been reported. Due to its rarity, numerous therapeutic methods have been proposed, but no one best therapy has been established.[3] Most treatment regimens focus on the pregnancy itself, and although some options do incorporate myometrial repair, there are no clear guidelines on the management of the CSD. Currently, first-trimester termination is recommended to minimise complications.[4]

CASE REPORT

A 38-year-old G3P2A0 came to RSUD Arifin Achmad Pekanbaru at 19 weeks of gestation with complaints of abdominal pain and bleeding from the birth canal since 3 days before admission. The patient initially came to the obstetrician for an ultrasound and was said to be suspicious of pregnancy in the caesarean section scar, but because she needed a fetomaternal assessment, she was referred. The

patient admitted that she was 5 months pregnant based on the results of the test pack and just one ultrasound. Then a fetomaternal ultrasound was carried out, and it was found that the foetus was a single foetus at 19 weeks' gestation, and there was no foetal heartbeat. The placenta was implanted in the caesarean scar. The patient then underwent a haematological examination, and it turned out that the Hb level was low, namely 7.2 g/dl. On physical examination, there was anaemic conjunctiva and tenderness in the abdominal area (+), and on VT examination, there was slinger pain.

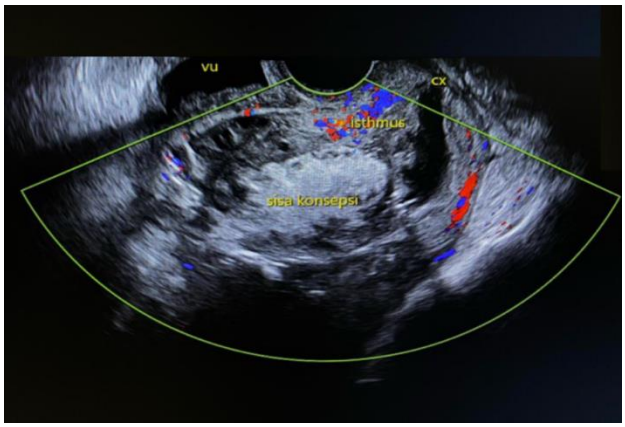

Figure 1: The results of implantation conception are visible on the cesarean scar.

Figure 2: During laparotomy, the uterine isthmus was seen to be bulging.

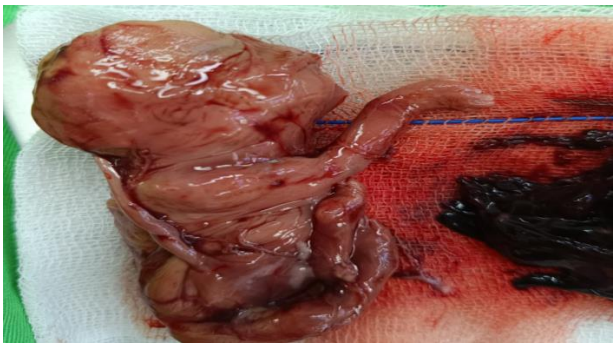

Figure 3: Fetus after evacuation during laparotomy.

Based on the results of the history, physical examination, and support provided, it was decided to perform an emergency laparotomy, bilateral pomeroy tubectomy, and 3 bags of blood transfusion. During the operation, the anterior part of the uterus is visible, and the placenta implantation is anterior, giving the impression of a caesarean scar pregnancy. The baby has died. 3 days after surgery, the Hb level was 10.4, and the patient was allowed to go home.

DISCUSSION

CSD is a condition characterised by incomplete healing of tissue cut during a CS, leading to thinning or dehiscence of the myometrium. It is typically located at the lower anterior uterine wall, especially after the previous lower segment CS. The depth of the defect, residual myometrial thickness (RMT), and adjacent myometrial thickness (AMT) are used for defining CSD, with depths over 2 mm or RMT below 5 mm termed a niche.[5,6] Factors such as uterine incision level, indication for CS, and number of previous CS contribute to CSD formation. CSD is linked to several perioperative factors, and its severity increases with the number of previous CSs. CSP is a complication where pregnancy implants in or near the scar, posing risks of uterine rupture and PASD. The natural history of CSP is limited, with high hysterectomy rates due to PASD. Several classification systems aid in determining management options based on the CSP's characteristics. TVUS usually provides a reliable diagnosis without the need for additional imaging.[7,8] Magnetic resonance imaging can aid preoperative planning for surgical intervention by indicating the depth of myometrial invasion and any bladder involvement. A CSP is differentiated from an intra-uterine pregnancy as it is below the mid-sagittal line on TVUS. Differential diagnoses include spontaneous miscarriage and cervical ectopic pregnancy. Prediction of PASD risk is crucial for management decisions, with ultrasound imaging playing a key role. Management options include termination of pregnancy (TOP) or continuation, depending on CSP type, RMT, and patient factors. Expectant management is associated with high risks, while TOP can be done medically or surgically. Surgical options include laparoscopy, hysteroscopy, and vaginal repair, often combined with pharmacological therapies.[5] Medical managements with methotrexate (MTX) or high-intensity focused ultrasound therapy (HIFU) provides non-invasive options. Uterine artery embolization (UAE) can be combined with other treatments for better outcomes. Surgical interventions, particularly laparoscopy and hysteroscopy, are effective for unstable patients or failed medical management, aiming for scar repair and the preservation of fertility. Vaginal repair, though requiring expertise, offers high success rates with minimal complications.[6] Overall, management decisions should involve multidisciplinary teams and consider patient preferences and future fertility desires. Thus, an integrated approach encompassing various modalities ensures

optimal care and outcomes for patients with caesarean scar defects and caesarean scar pregnancy.[9,10]

CONCLUSION

Unlike other ectopic pregnancies, CSP can worsen the condition of the mother. It is iatrogenic, associated with an increase in CS cases. One such element is PASD. Strict standards, early detection, and qualified sonographers are essential. CSP is managed by multidisciplinary teams of radiologists and surgeons. Because of the hazards, termination is usually advised; however, depending on personal circumstances and future pregnancy goals, a high-risk clinic visit may be necessary. Surgical decisions are influenced by RMT, CSP type, and fertility. The literature supports an interventional rather than medical approach but the safest and most efficient clinical approach to CSP in terms of treatment modality and service delivery is yet to be determined.

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