Case Report
Cesarean Scar Pregnancy in 8 Weeks Pregnancy with History of Recurrent Pregnancy Loss

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Abstract
Background: Caesarean scar pregnancy is a complication in early pregnancy implants gestational sac in the myometrium and fibrous tissues at the site of a previous uterine scar. Recurrent pregnancy loss defines loss as two or more pregnancies that do not have to be consecutive. This condition presents a substantial risk for severe maternal morbidity and associated with psychological aspects.
Case Illustration: Mrs. D 37 years old, G6P2A3 in her 8 weeks pregnancy. With significant lower abdominal pain and vaginal bleeding occurs for two days in the beginning of pregnancy. Blood pressure of 70/50mmHg, pulse rate of 100x/min, respiration rate of 22x/min, temperature of 36,6°C, SpO2 of 100%, hemoglobin of 10,7 gr/dL. Abdominal examination was significant for rebound tenderness on lower abdomen. Transvaginal ultrasound which showed a fetus in uterine cavity and a moderate amount of free fluid in intraperitoneal cavity. Upon surgery, 1000cc of blood was found pooled in the peritoneal cavity, and laceration with length of 2 cm, about 5 cm below the uterine fundus.
Conclusions: Caesarian scar pregnancy incident is increasing, as a result of high caesarian delivery rate, so the clinician should always ask for the past obstetrical history, particularly in patient with recurrent pregnancy loss with curettage procedure.

Keywords: Cesarean Scar Pregnancy, Recurrent Pregnancy Loss

Laporan Kasus
Kehamilan Bekas Luka Sesar pada Kehamilan 8 Minggu dengan Riwayat Keguguran Berulang

Abstrak
Latar belakang: Kehamilan bekas luka caesar adalah komplikasi pada awal kehamilan yang menanamkan kantung kehamilan di miometrium dan jaringan fibrosa di lokasi bekas luka rahim sebelumnya. Keguguran berulang diartikan sebagai keguguran sebagai dua atau lebih kehamilan yang tidak harus terjadi secara berurutan. Kondisi ini menimbulkan risiko besar terhadap morbiditas ibu yang parah dan berhubungan dengan aspek psikologis.
Ilustrasi Kasus: Ny. D 37 tahun, G6P2A3 dalam usia kehamilan 8 minggu, dengan nyeri perut bagian bawah yang signifikan dan perdarahan vagina terjadi selama dua hari di awal kehamilan. Tekanan darah 70/50mmHg, denyut nadi 100x/menit, laju pernapasan 22x/menit, suhu 36,6°C, SpO2 100%, hemoglobin 10,7 gr/dL. Pemeriksaan perut nyeri tekan signifikan pada perut bagian bawah. USG transvaginal menunjukkan janin dalam rongga rahim dan sejumlah cairan bebas dalam rongga intraperitoneal. Setelah operasi, ditemukan 1000cc darah menggenang di rongga peritoneum, dan terjadi laserasi sepanjang 2cm, sekira 5cm di bawah fundus uteri.
Kesimpulan: Kejadian kehamilan bekas luka caesar semakin meningkat akibat tingginya angka kelahiran caesar sehingga dokter harus selalu menanyakan riwayat obstetri masa lalu, terutama pada pasien dengan keguguran berulang dengan tindakan kuretase.

Kata kunci: Kehamilan Bekas Luka Sesar, Keguguran Berulang

Introduction

Cesarean scar pregnancy is a complication in which an early pregnancy implants gestational sac in the myometrium and fibrous tissues at the site of a previous uterine scar.[1] A possible mechanism is that trauma caused by a caesarean section creates microscopic tracts through which an implanting blastocyst abnormally invades the affected myometrium. Reported estimates of incidence range from 1 in 1,800 to 1 in 2,226 of overall pregnancies in the world.[2,3] there would be a substantial risk of uterine rupture with catastrophic hemorrhage with a high risk of hysterectomy causing serious maternal morbidity and loss of future fertility which was what happened in our case.[4] Transvaginal ultrasonography and color flow doppler are essential for the early diagnosis of CSP.

Recurrent pregnancy loss is a distressing pregnancy disorder experienced by 2.5% of women trying to conceive, is defined as the failure of two or more clinically recognized pregnancies before 20–24 weeks of gestation and includes embryonic and fetal losses.[5]

Primary health care providers should know about this rare entity, because if diagnosed timely, and referral to specialized centre is done without delay will definitely save maternal morbidity and mortality.[6]

We discussed a case report of 37 years old female, G6P2A3 in her 8 weeks of gestational age with acute abdomen suspect Ruptured Cesarean Scar Pregnancy with history of recurrent pregnancy losses with curettage procedure.

Case Report

A 37 years old female, G6P2A3 in her 8 weeks of gestational age, presented to Obstetric and Gynecology Unit of Palabuhan Ratu Regional Public Hospital with significant lower abdominal pain since 3 hours prior admission. The patient admitted experiencing a delay in her menstruation cycle for approximately 8 weeks, followed by a positive pregnancy test.

On her first pregnancy in 2008, she suffered from incomplete abortion at 10 weeks of gestational age, but was not performed any surgical treatment. Her first baby was born via spontaneous delivery in 2010 at 37 weeks of gestational age, weighing 2800 grams. In 2016, she had a caesarean delivery at 33 weeks of gestational age on indication of gemelli pregnancy and preeclampsia. She was again diagnosed with incomplete abortion in 2019, but this time, she undergone a curettage procedure. The patient has a history of blighted ovum while being pregnant for 8 weeks in 2020 and also undergone a curettage procedure.

The patient has complained about the pain since the beginning of this pregnancy, which is described as akin to being slashed and radiates to the waist and the back. Family members stated she had a syncope episode because of the pain. She is noted to have had be having vaginal bleeding for about two days in the beginning of pregnancy. This was a planned pregnancy. She denied having any history of falling nor consuming any medication. The patient had no previous antenatal follow-up in this pregnancy, including USG examination. In initial assessment, the patient appeared pale and anxious, with VAS score of 9 out of 10. Vital sign assessment revealed blood pressure of 70/50mmHg, pulse rate of 100x/min, respiration rate of 22x/min, temperature of 36,6°C, SpO2 of 100%. Her abdominal examination was significant for rebound tenderness on lower abdomen, a suggestive sign of acute abdomen. It is also revealed that the patient had blood spotting in her undergarments. Her hemoglobin count measured 10,7 gr/dL. The examination was complemented by a transvaginal ultrasound, which showed a fetus in uterine cavity and a moderate amount of free fluid in intraperitoneal cavity.

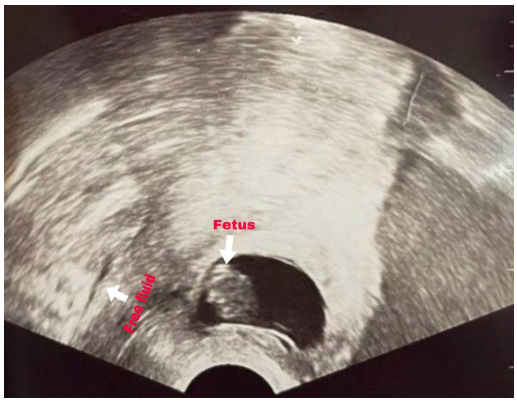

Figure 1 Result of transvaginal ultrasound: fetus in uterine cavity and a moderate amount of free fluid in intraperitoneal cavity

The diagnosis of a suspect ruptured ectopic cesarean scar pregnancy was informed to the patient, in which she consented to an emergency laparotomy. The laparotomy was done by performing a Pfannenstiel incision above the incision scar from a previous cesarean, continued by cutting open the peritoneal cavity. Upon surgery, 1000 cc of blood was found pooled in the peritoneal cavity. It is also revealed she had a laceration, with length of 2 cm, about 5 cm below the uterine fundus. Both Fallopian tubes appeared normal. Dilation and curettage procedures were performed, followed by suturing the uterus and stitching the wound layer by layer.

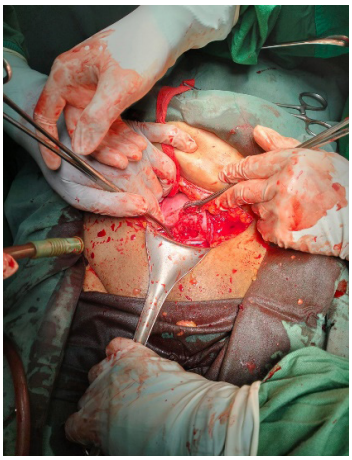

Figure 2 Emergency Laparotomy

Discussion

Cesarean scar pregnancy is a complication in which an early pregnancy implants gestational sac in the myometrium and fibrous tissues at the site of a previous uterine scar.[1] It is estimated to account for 0.15% of pregnancies after one cesarean and will likely increase in prevalence due to globally rising cesarean section rates.[1,7,8] there would be a substantial risk of uterine rupture with catastrophic hemorrhage with a high risk of hysterectomy causing serious maternal morbidity and loss of future fertility which was what happened in our case.[4] The number of cesarean sections, the time interval between the previous cesarean section and the subsequent pregnancy, and the indications for the previous cesarean section, but it is not clear whether these factors are directly related to CSP.[9] Color flow Doppler can be used to demonstrate the peri-trophoblastic flow around the gestational sac and its relationship to the uterine scar and nearby viscera.[6]

Recurrent pregnancy loss is a distressing pregnancy disorder experienced by 2.5% of women trying to conceive, is defined as the failure of two or more clinically recognized pregnancies before 20–24 weeks of gestation and includes embryonic and fetal losses.[7] The ESHRE 2017 defines RPL as two or more pregnancies that do not have to be consecutive [8,10,11] This condition presents a substantial risk for severe maternal morbidity it is challenge in securing a prompt diagnosis as well as uncertainty regarding optimal treatment once identified.[1]

Implantation and pregnancy developments require a functional and optimal interplay between a good quality embryo euploid and a receptive endometrium. It is admitted commonly that approximately 15% of all pregnancies end early, before completion of the first trimester, with fewer than 5% of women experiencing two early pregnancy losses and 1% experiencing three

pregnancy losses.[12] Maternal age older than 35 years, gravidity higher than 3 (especially gravidity higher than 5), more than two induced abortions (especially more than five abortions), an interval of less than 5 years (especially less than 2 years) between the current pregnancy and the last CS, history of CS performed in a rural hospital, history of induced abortions after CS and retro-position of the uterus were possible independent risk factors for CSP.[12,13] For uncomplicated cesarean delivery, the average hospitalization length is 3 to 4 days, family and medical leave act to allow up to 12 weeks for recovery.[2]

Limitations

In this case, we had difficulty completing the history of previous cesarian surgery because the patient had forgotten about the details and she did not come back for follow-up appointment after cesarian surgery. During this operation at the Pelabuhan Ratu Hospital, the patient also did not come back for our follow-up appointment, so we had difficulty monitoring the patient's progress after the surgery.

Conclusions

Caesarian scar pregnancy incident is increasing, as a result of high caesarian delivery rate. Clinician should always ask for the past obstetrical history, particularly in patient with bleeding in first trimester of pregnancy. Primary health care providers should know about this rate entity, because if diagnosed correctly, and referred faster, it will definitely save maternal morbidity and mortality.

References

1. Russell Miller [1], Ilan E Timor-Tritsch [1], Cynthia Gyamfi-Bannerman [1] Society for Maternal-Fetal Medicine (SMFM) Consult Series #49: Cesarean scar pregnancy. (cited 29 Februari 2024). Available from : https://pubmed.ncbi.nlm.nih.gov/31972162/
2. The ESHRE Guideline Group on RPL; Atik, R.B.; Christiansen, O.B.; Elson, J.; Kolte, A.M.; Lewis, S.; Middeldorp, S.; Mcheik, S.; Peramo, B.; Quenby, S.; et al. ESHRE guideline: Recurrent pregnancy loss: An update in 2022.
3. CunninghamF,&LevenoK.J.,&DasheJ.S., & Hoffman B.L., & Spong C.Y., & Casey B.M.(Eds.), [publicationyear2] *Williams Obstetrics, 26e*. McGraw Hill. P597-600
4. Ban, Yanli MD, PhD; Shen, Jia MD; Wang, Xia MD; Zhang, Teng MD, PhD; Lu, Xuxu MD; Qu, Wenjie MD; Hao, Yiping MD; Mao, Zhonghao MD; Li, Shizhen MD; Tao, Guowei MD, PhD; Wang, Fang MD, PhD; Zhao, Ying MD, PhD; Zhang, Xiaolei MD, PhD; Zhang, Yuan MD, PhD; Zhang, Guiyu MD, PhD; Cui, Baoxia MD, PhD. Cesarean Scar Ectopic Pregnancy Clinical Classification System With Recommended Surgical Strategy. Obstetrics & Gynecology 141(5):p 927-936, May 2023. (cited 27 februari 2024). Available from: https://journals.lww.com/greenjournal/fulltext/2023/05000/cesarean_scar_ectopic_pregnancy_clinical.10.aspx#JCL-P-9
5. Shraddha A Mevada , Madhuri A Mehendale, Ruptured Scar Ectopic Pregnancy: A Near Miss Case, Journal of South Asian Federation of Obstetrics and Gynaecology (2020): 10.5005/jp-journals-10006-1766. (cited 29 Februari 2024). Available from : https://www.researchgate.net/profile/Madhuri_Mehendale/publication/345499035_Ruptured_Scar_Ectopic_Pregnancy_A_Near_Miss_Case/links/61e55cb29a753545e2d974[15]/Ruptured-Scar-Ectopic-Pregnancy-A-Near-Miss-Case.pdf
6. Shah P, Manandhar R, Thapa M, Saha R. Ruptured Cesarean Scar Pregnancy: A

Case Report. JNMA J Nepal Med Assoc. 2019 May-Jun;57(217):209-212. doi: 10.31729/jnma.4465. PMID: 31477966; PMCID: PMC8827501 (cited 27 februari 2024). Available from: https://pubmed.ncbi.nlm.nih.gov/31477966/

7. Rotas MA, Haberman S, Levgur M. Cesarean scar ectopic pregnancies: etiology, diagnosis, and management. Obstet Gynecol 2006;107(6):1373–1381. DOI: 10.1097/01.AOG.0000218690.24494.ce.
8. Rosen T. Placenta accreta and cesarean scar pregnancy: overlooked costs of the rising cesarean section rate. Clin Perinatol 2008;35(3): 519–529. DOI: 10.1016/j.clp.2008.07.003.
9. Ash A, Smith A, Maxwell D. Caesarean scar pregnancy. BJOG. 2007 Mar;114(3):253-63. doi: 10.1111/j.1471-0528.2006.01237.x. PMID: 17313383. (cited 29 mei 2024), Available from : https://pubmed.ncbi.nlm.nih.gov/17313383/
10. Dimitriadis, E., Menkhorst, E., Saito, S. *et al.* Recurrent pregnancy loss. *Nat Rev Dis Primers* **6**, 98 (2020). (cited 29 Februari 2024). Available from: https://doi.org/10.1038/s41572-020-00228-z
11. Tomkiewicz, Julia, and Dorota Darmochwał-Kolarz. 2023. "The Diagnostics and Treatment of Recurrent Pregnancy Loss" *Journal of Clinical Medicine* 12, no. 14: 4768. (cited 29 Februari 2024). Available from: https://doi.org/10.3390/jcm12144768 . https://www.mdpi.com/2077-0383/12/14/4768
12. Ipsita Mohapatra , Subha R. Samantray 1. Obstetrics and Gynecology, All India Institute of Medical Sciences Kalyani, Kalyani, IND. Scar Ectopic Pregnancy - An Emerging Challenge. (cited 29 Februari 2024). Available from: https://assets.cureus.com/uploads/original_article/pdf/65077/20210826-21208-jfvp32.pdf
13. XianYi Zhou, Hua Li, XiaoDong Fu, Identifying possible risk factors for cesarean scar pregnancy based on a retrospective study of 291 cases. 2020 The Authors. Journal of Obstetrics and Gynaecology Research published by John Wiley & Sons Australia, Ltd on behalf of Japan Society of Obstetrics and Gynecology. https://obgyn.onlinelibrary.wiley.com/doi/full/10.1111/jog.14163