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Case Series

Retained products of conception: A challenging case

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Abstract

Retained products of conception is a condition where some remnants of trophoblast or placenta are retained after spontaneous or induced abortion especially medical or after delivery; vaginal or caesarean. These retained products cause bleeding and is source of infection. The diagnosis is based on clinical presentation and sonography, sometimes some patients may require other modes of imaging. There are different modalities of treatment, hysteroscopic removal is claimed to be superior to others. We present a case of retained products after medical methods of termination of pregnancy in a case of chronic myeloid leukaemia. The diagnosis was made on clinical history and confirmed on sonography. The patient had marked pancytopenia and was managed conservatively aided by prostaglandins along with serial measurement of β human chorionic gonadotrophins. Fertility, pregnancy and contraception are important parts of the management of chronic myeloid leukaemia and other malignancies as the survival rates are improving with new modalities of treatment.

Keywords: Retained products, βhCG, Misoprostol, Chronic myeloid leukemia, Suction evacuation.

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1. Introduction

Retained products of conception (RPOC) is a condition where some remnants of trophoblast or placenta are retained after spontaneous or induced abortion especially medical or delivery; vaginal or caesarean.[1,2] These retained products can cause bleeding and are a source of infection resulting in endometritis and this situation makes the patient anxious. These products can result in excessive postpartum haemorrhage (PPH) especially when caesarean section is performed for adherent placenta in cases of placenta previa.[1,3] The condition is diagnosed on sonography when the patient complains of mild bleeding and sonography especially the transvaginal confirms the condition. Doppler studies showing vascularity indicates active trophoblast. Serum β hCG measurement is often performed but a negative test does not rule out RPOC as the retained tissue may be necrotic and dead. There are different ways to manage this condition either conservatively, medically or surgically. The case presented here is a case of RPOC in case of chronic myeloid leukaemia (CML) where the management was a challenge as there was pancytopenia. The case was managed medically and responded well.

2. Case Series

33 years old woman, a known case of chronic myeloid leukaemia (CML) on tyrosine kinase inhibiter Nilotinib was referred by haematology department to medicine outpatient as she had developed pancytopenia. Her haemoglobin was 5.6 gm percent, total leukocyte count 1200 (Neutrophils 80%, Lymphocytes 15% and Monocytes 3% Basophils 2%). Other investigations like liver function tests, renal function tests, bleeding time, coagulation time and INR etc. were normal. She was admitted in medical ward for observation and treatment. She was put on tablet Trombopag 50 mg twice a day and Iinj Cefepime Tazobactam intravenously twice a day. Plan was to transfuse irradiated blood and platelets to improve her blood parameters. She was diagnosed with CML two years back and was started on medication (Nilotinib)

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which was stopped after admission because of serious side effects in the form of pancytopenia.

She complained of bleeding for the last ten days after taking abortion pills two weeks back (at about eight weeks of gestation) on her own. She was eighth gravida with six normal deliveries and one induced medical abortion one year back. She was not using any contraception. On gynaecological examination the size of uterus was six weeks, closed cervix and no adnexal fullness or tenderness. Transvaginal ultrasound was performed (**Figure 1**) which showed retained products of conception measuring about 67X36X38 mm with a volume of 48 CC along with vascularity. There was no heavy bleeding and no clinical signs of infection and she had been put on antibiotics. One of the options was to perform surgical evacuation but it appeared very risky in view of her severe anaemia and very low platelet count in spite of multiple PCV (irradiated) transfusions, random donor platelets (RDP) and single donor platelets (SDP). In view of such a high risk it was decided to do medical management and measuring her serum βhCG serially. She was administered 200 µgm Misoprostol per rectally twice a day for five days. The first level of βhCG was 2964, and 2224 mIU/ml when repeated after a week. Her bleeding had reduced and she herself had no complaint. Repeat sonography after a week showed marked reduction in the retained product volume to 19 CC. Patient was not keen to stay in hospital and requested for discharge, she was discharged on request with advice to report to the hospital in case of fever or excessive bleeding. She passed a small fleshy mass spontaneously (**Figure 2**) at home and sonography repeated the next day showed empty uterine cavity; βhCG repeated after two weeks was 34 mIU/ml. Histopathology examination of the expelled tissue could not be done as the expulsion occurred at home and tissue was not available. Vaginal bleeding had stopped completely. She was called to hospital and was put on Injection Depo Provera (Medoroxyprogesterone Acetate 150 mg) intramuscularly three monthly for contraception. Permanent method of contraception was suggested and decision left to the couple; this could be planned when general condition improved. She has been advised bone marrow transplant by haematologist which was being arranged at a different institute as facilities were not available at this institute.

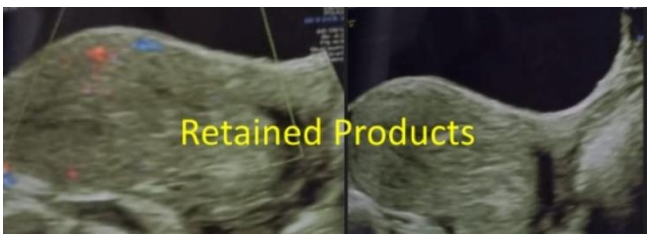

Figure 1: Retained products on transvaginal sonography

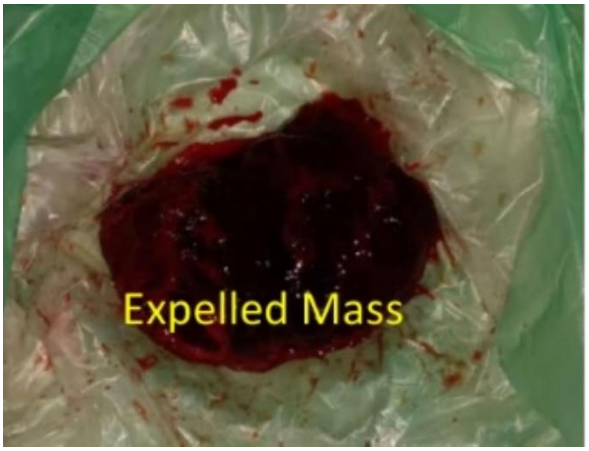

Figure 2: Expelled mass

3. Discussion

Retained products of conception[2] is a condition where some remnants of pregnancy remain inside the uterine cavity after delivery, caesarean section or abortion. The predisposing factors being preterm delivery, maternal age more than 35, pervious uterine surgery; either of caesarean section or myomectomy, primigravida, atonic uterus, previous dilatation and curettage, adherent placenta and congenital malformation of uterus etc.[3,4] Placenta accreta is a risk factor for RPOC when placenta is adherent; completely or partially.[5,6]

This clinical condition is usually suspected when the patient complains of bleeding or spotting after abortion or delivery or may report with severe postpartum or post-abortal haemorrhage.[7] especially after caesarean section performed for placenta previa where the placenta was adherent. The condition can be diagnosed on ultrasonography with or without doppler studies, computed tomography and magnetic resonance imaging.[8] Ultrasound shows a hyperechoic mass.

There is always a risk of infection and at times severe haemorrhage, it can also cause long term complications like infertility, uterine adhesions and chronic pelvic pain.[9]

Diagnosis of RPOC on sonography may be difficult as retained products cannot be differentiated from retained blood clots. Colour doppler and grey scale may help to differentiate the two. The most sensitive finding of RPOC on grey-scale sonography is a hyperechoic endometrial content called thickened endometrial echo complex, the acceptable definition of thickened endometrial echo complex is not clear but the size ranging from 8 to 13 mm helps in suspicion and colour doppler helping in improving the diagnosis.[10] Serum β hCG levels also may be checked, but they may not be helpful because they can be elevated in the post-partum or post-abortal period or may not be detectable as the retained products may be dead tissue. The histological diagnosis is based on the presence of trophoblastic villi, indicating persistent placental or trophoblastic tissue, which can penetrate uterine endometrium also. Histopathological

confirmation is not mandatory, diagnosis is primarily clinical and on imaging.[4]

As RPOC is a common cause of secondary postpartum or post-abortal bleeding. Diagnosis in time, early evaluation of bleeding is important for timely treatment and for preventing immediate complications; both immediate and long term.

The overall incidence or retained products vary approximately from 1 to 6%.[4,1110] The incidence of RPOC appears to be related to the period of gestation of the pregnancy, more frequent after second-trimester abortion or termination of pregnancy. Incidence of RPOC is estimated to be 1% approximately in term pregnancies.[12]

There are various ways to treat this condition and all modalities have their own advantages and disadvantages.[9] There are no clear guidelines available at present and the modality of treatment varies from case to case.[13] The modalities of treatment being blind dilation and suction curettage as was done earlier; expectant management with or without misoprostol, uterine artery embolization, and hysteroscopic resection. At times hysterectomy too has been resorted to in uncontrolled bleeding. Hysteroscopy has the advantage of ensuring complete evacuation, diagnosis of uterine malformation and subsequently reducing the chances of infertility or subfertility.[1]

Conservative management by waiting for spontaneous expulsion of the products aided by prostaglandins was followed in this case but there are new approaches like use of hysteroscopy which was not possible in this case because of her poor haematology parameters. Hysteroscopy is claimed to reduce the damage to endometrium thereby reducing the long term complications like Asherman Syndrome etc. as claimed by Smorgick N, et al. [14] But this claim is not yet proven to be superior by many authors. [15,16]

The challenging part in our case was RPOC in a case of CML with pancytopenia as a side effect of Imatinib.[17] Management of fertility and pregnancy is challenging in every malignancy and same is with cases of CML. The number of cases is increasing after the evidence-based practice of chemotherapy and more and more cases will be needing counselling and help regarding these important personal, cultural and societal concerns. The treatment CML is challenging in women who want to conceive or are already pregnant as there are risks to the foetus of these drugs.[18] The present knowledge and practices of managing pregnancy with CML are not clear and will remain a subject of research. With the widespread use of tyrosine kinase inhibitors have greatly increased the survival and many studies indicate that pregnancy is manageable provided the disease remains under check.

There are no studies which mention the problems faced while managing the case presented. This situation was preventable and happened due to lack of contraception. All patients should be managed holistically where reproduction and contraception are important aspects. Our patient has been put on LARC (Long-acting reversible contraceptive) to avoid the same situation in future and she has been advised to plan for permanent sterilisation later once her condition improves and becomes stable.

4. Conclusion

Retained products of conception is retention of trophoblastic or placental tissue after evacuation or delivery. This condition has the potential risk of infection, bleeding and long-term complications like subfertility and intrauterine adhesions. The case became challenging as the patient was a case of chronic myeloid leukaemia with pancytopenia. All cases of malignancy should be counselled about fertility and contraception. This situation was avoidable by use of contraception either temporary or permanent.

5. Source of Funding

None.

6. Conflict of Interest

None.

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