Emergency Management of Anterior Placenta accrete with uterine wall excision:

Registrar on call

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Case summmary

At Queen's hospital, we manage women with placenta accrete using a multidisciplinary approach and have done so for the last 8 years. For a short video and pictures steps of the operation to show how to manage an unexpected presentation or morbid adherent placenta at the time of either routine or emergency caesarean section.

The management in this feature refers to a low-lying anterior placenta which is amenable to excision and reconstruction of the uterus.

It may not be suitable if the placenta is posterior, a complete or if the placenta invading the cervix.

In this case, we will present a case which present the management of emergency placenta accrete at Queen's Hospital in Romford, United Kingdom. The background, this lady was a 44-year-old, with diabetes mellitus Type II, Asian lady with a previous history of three Caesarean sections, which increase her risk for morbid adherent placenta in this pregnancy. The placenta was anterior low lying.

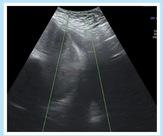
She was seen in the antenatal clinic, and she was therefore subsequently referred to foetal medicine unit to investigate whether this is a morbid adherent placenta?

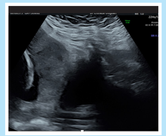
She was being treated with insulin and metformin. Her antenatal care was relatively uneventful other than she had presentation at 20 weeks with low-lying placenta. She was booked for elective caesarean section at 38weeks since she had three previous Caesarean sections.

On further investigation, it was noted that it did not appear to be morbidly adherent placenta, and her case was discussed at the M D T. She had number of scans. One of the most significant features, however, it was the fact that she had **loss of the hypoechoic area** space between the placenta and the thin lower segment, which can be confusing at times. At foetal medicine unit, it was decided that because, she did not have all the features of a morbid adherent placenta that she would not manage with a potential placenta accrete.

Important ultrasound features

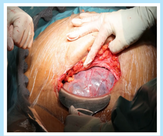
This is the scan was taken at 33 weeks, which indicates very clearly there was none of the features of hyper vascularity. Loss of the hypoechoic space appears to be there, but as you can see, she had a high BMI. So, views were restricted. Another scan showed **loss of the hypoechoic space**. But other than that, no other features for placenta accrete was seen. No hyper vascularity.





Delivery

She was booked to have an elective caesarean section at 38 weeks. Unfortunately, she presented with a bit of bleeding not on the day when she was expected to have her baby at 37+5w. She had a routine bedside scan in theatre. It was very clear that when we opened her uterus, there was evidence of morbid adherence based on visualizing the thin lower segment with bulging placenta which called blueberry appearance? Please look at the picture. As a result of that, she ended up having her emergency caesarean section. Then the next thing, these are the steps how to do such case with excision the uterine wall with placenta in situ.



Scenario for on call registrar

What if?

If you are Registrar on call in the night shift has a patient in a hospital and have not advanced foetal medicine unit or antenatal care and not advanced ultrasound to diagnose placenta accrete antenatally. The patient presented in thee triage with APH and she needs emergency caesarean section.

The registrar on-call must do the caesarean section and start the operation. The information he knows is, the patient has placenta praevia and previous caesarean sections.

What must he do?

The patient is in the theatre and prepared for caesarean section.
He knows that this patient is high risk for placenta accrete but he has no confirmation for it.

What he should do now?

The registrar prepared for the Caesareans section, informed the theatre team, anaesthetist (Group +Save) valid, Haematologist and on-call obstetrician consultant. However, the consultant is away 30 minutes to arrive to the hospital and the patient is bleeding and need delivery.

First, he discussed with the consultant Obstetrician, and they agreed to start the operation till the delivery of the baby and the consultant will continue when he arrives.

The registrar opened the abdomen and then he saw the bulging placenta. He informed the consultant who requested to do vertical incision close to the fundus and not to touch the lower uterine segment. please see the picture.

Learning points

In this case, As a registrar you must:

1. Anticipate the risk of placenta accrete.

2. Identify if there are signs of placenta accrete such as plugging of the placenta; blueberry appearance.

Operation steps by registrar
The registrar starts the operation, and these are the steps that are undertaken at the time of the surgery by registrar until the consultant arrives:


1. Opening the abdomen


2. Identification of the placenta accrete


3. Pfannenstiel incision must be extended


4. A Midline vertical incision is made as high as possible and closer to the fundus


5. The Uterus can be completely exteriorized to extend the vertical incision


6. Extension of vertical incision

7. Deliver the baby with breech presentation


8. Umbilical cord tied at the base of the placenta


9. Blueberry appearance


Jacque catheter applied temporarily below the low segment

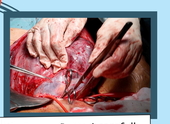
Operation steps by consultant
Then it is now 30 minutes after the start of the operation and the consultant must be in the theatre in that time and continue as follows:


10. Closure the uterus in layers; placenta in situ


11. Uterus sutured in layers


12. Bladder reflected carefully. Diathermy is never used due to the unpredictable depths of penetration and potential trauma to the bladder


13. Ligaclips for hemostasis at bridging vessels between the uterus and the bladder


14. Bladder reflected carefully with ligature in situ


15. Second Jacque catheter applied including broad ligament to reduce the bleeding


16. Resection the uterus with placenta in situ


17. Closure the uterus: first layer interrupted and second layer continuous Vicryl 1-0


18. Bilateral ligation of uterine arteries


19. Jacque catheter removed; uterus felt contracted


20. Extra box sutures applied to achieve haemostasis


21. Sterilization with Filsche clips as the patient requested sterilization


22. Robinson drainage inserted


23. In some cases, Omentum placed in between the posterior wall of the bladder and the anterior uterine wall


24. Routine abdomen closure

Post-op and Discharge

The total blood loss in this case was 800 ml. The woman did not need a blood transfusion, had an uneventful recovery with a 4-day post op hospital stay. Both baby and mother were discharged on the same day.

Histology

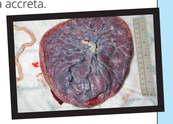
On 22/09/22, The histopathology confirms the placenta accrete.

NATURE OF SPECIMEN:
Placenta and membranes. Placenta accreta.

CLINICAL DETAILS:
Placenta praevia. Placenta accreta.

DIAGNOSIS:
Placenta and membranes:

Placenta accreta.
Placenta with chorionic villi showing focal chorangiosis, perivillous
fibrin deposition and a focus of calcification.
Membranes, free of inflammation.
Three blood vessel umbilical cord.



Follow up

On review, three months later the woman has resumed menstruation and an ultrasound of the uterus revealed a well involuted uterus with minimal evidence of significant surgery.

Conclusion

This scenario will help Trainees to deal with this such emergency case of anterior placenta accrete. It is important for trainees everywhere to understand how to identify and manage this complex condition, which increase due to rise in caesarean section rates all over the world. It is also important; we develop techniques that can be easily implemented in poor countries who do not have the facilities for interventional radiology services and poor transfusion services too.

At the end I would like to thank the placenta accrete team, radiologists the transfusion practitioners, interventional radiology, and theatre stuff- who make this type of complex surgery appear simple but extremely effective.