

B-Lynch Brace suture for conservative surgical management for placenta increta.

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Abstract

Placenta accreta is defined as “an abnormal adherence, either in whole or in part, of the afterbirth to the underlying uterine wall”. Placenta increta occurs when the placenta invades deeply into the myometrium.¹ Placenta increta is a life threatening condition. We report a case of placenta increta managed by unilateral uterine artery and ovarian artery ligation followed by B- Lynch Brace suturing of the uterus to control bleeding from the placental bed.

Key words: Placenta increta, PPH, B-Lynch suture

Case report

Mrs KTK, 39 years, G5, P3+1, was admitted for induction of labour at 37+ weeks of gestation as she had no living issue. Her first pregnancy was a spontaneous miscarriage at 16 weeks followed by intrauterine death of a full term foetus that was delivered vaginally. She subsequently had one late and one early neonatal deaths. Both of them were full term vaginal births. Induction of labour was started with syntocinon infusion. She underwent emergency caesarean section for fetal distress (meconium stained liquor) and non progress of labour. An alive female baby weighing 2.7 kg was delivered by vertex with APGAR score of 4 and 6 at 1 minute and five minutes respectively. Placenta was found to be partly increta mainly invading the right lateral wall near right cornu extending down laterally involving upper half of upper uterine segment. Decision was made to preserve the uterus considering her obstetric history and placenta was removed piecemeal as much as possible. Part of the placenta was left behind adherent to the right cornu. Oxytocics like syntocinon and ergometrine were given. As there was profuse bleeding from the raw placental bed near right cornu, right sided uterine artery ligation followed by right sided ovarian artery ligation was done but bleeding from the placental bed continued. On bimanual compression, bleeding appeared to stop. We thought that probably B-Lynch suture will work. B-Lynch suture was applied as reported by Christopher B-Lynch and his co-workers (1997) and bleeding was completely stopped. Total blood loss was approximately 1000 ml. The patient received continuous syntocinon infusion for 12 hours,

antibiotics and 2 units of blood transfusion. . We considered treatment with methotrexate, but later on, decided to give it only if recurrence of bleeding occurs or there is delayed involution.

Her post operative period was unremarkable. We kept her for 2 weeks to watch for secondary postpartum haemorrhage. Both mother and baby were fine at the time of discharge No complication was reported up to 6 weeks postpartum. Though her uterus was preserved, she was advised to avoid another pregnancy as far as possible to prevent any possible recurrence of the condition

Discussion

Clinical diagnosis of placenta increta is usually made when placenta is retained following delivery of the baby. Removal either manually or by curettage is found to be extremely difficult. Risk factors for this condition are multiparity, previous uterine infections, uterine scar, previous curettage etc. Antenatal diagnosis of placenta increta by ultrasonography or MRI should probably be considered as experimental at present.

The treatment of choice for placenta increta has traditionally been hysterectomy but various conservative methods to preserve the uterus for future fertility has been advocated. Factors like age of the patient, need to preserve future fertility, degree and

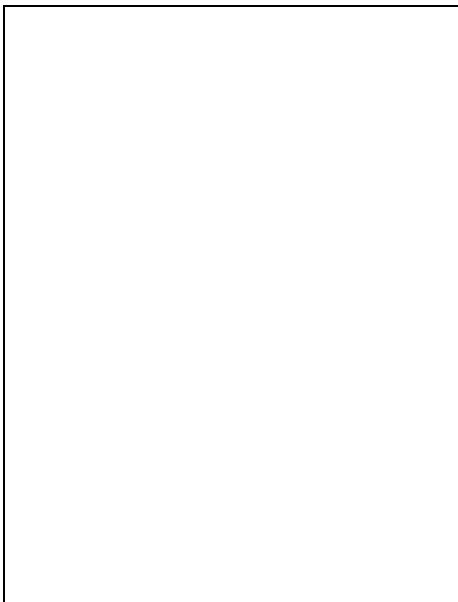
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extent of placental invasion, amount of blood loss and condition of the patient etc. determine whether Conservative management is worth to attempt in selected cases of placenta increta. Leaving behind the whole placenta with or without methotrexate therapy has also been tried but this conservative method does involve the risk of haemorrhage and infection. Similarly, deep curettage followed by step wise devascularisation, resection of the affected part or oversewing of the implantation site has also been tried.

B-Lynch suture has evolved as a valuable alternative surgical method for controlling postpartum haemorrhage due to uterine atony as it provides an effective compression of the placental bed. Direct compression of the uterus controls bleeding from the placental bed in case of placenta increta after removing the placental tissue piecemeal. This appears to be simple, effective, and relatively safe life saving procedure which can be applied with minimal expertise. Probable effectiveness of the suture can be tested by prior bimanual compression of the uterus. If the compression controls bleeding, it is likely that suture will work. Effect can be seen immediately on application of the suture.

This technique as described by Christopher B-Lynch et al, following vaginal delivery, can be summarized as below (See Figure).



1. General anaesthesia, urinary catheter in place and the patient in the Lloyd Davies position Pfannenstiel incision to open the abdomen.
2. Lower segment uterine incision as for caesarean section made after dissecting off the bladder. (In the present case, patient was in supine position and the suture was applied following lower segment caesarean section in which uterus was already open.).
3. Bimanual compression of the uterus to assess the potential chance of success of the suture.
4. A number 2 chromic catgut on a round body needle is used to puncture the uterus about 3 cm below the right hand corner of the lower segment incision and brought about 3 cm above the same corner (as one would place the first suture when closing this corner of the incision).From this point, the suture is passed over the right hand cornu of the uterus , approximately 3-4 cm from the right corneal border , where it may be fixed to prevent it from slipping of the fundus (We did not fix the suture), and then fed posteriorly and vertically down to the same level where the suture has previously left the uterine cavity from the anterior. The suture is then placed through the posterior uterine wall into the cavity under the direct vision of the surgeon and back through the posterior wall about 4-5 cm left of the previous entry site .With the suture outside and posterior of the uterine cavity at this stage , it is now passed over the left hand cornu, approximately 3-4 cm from the left corneal border , where again it may be fixed to the fundus, then fed anteriorly and vertically down to the level of the left corner of the lower segment incision. The needle is then passed through the left corner in the same fashion as on the right hand side, to emerge below the incision margin on the left side.
5. With the suture now in place, the assistant bimanually compresses the uterus while the surgeon pulls the chromic suture taught. If a third person confirms that the bleeding is controlled (as observed vaginally), the surgeon ties the suture to keep it in position and closes the lower segment uterine incision.

B-Lynch et al (1997) reported 5 cases where this suture technique was used successfully to control massive PPH.² Pal M et al (1998) reported 6 cases of primary PPH during caesarean section in

primigravidas who underwent B-Lynch suturing and none of them required blood transfusion or developed DIC.³ Post operative recovery was good in all of them. Similarly, Mazhar S B et al (2003) reported two cases of intractable PPH managed by brace suturing.⁴

Shakila Yasmin et al (1999) published a case report where B-Lynch suture was applied as “last ditch” measure before hysterectomy when bilateral uterine, ovarian and internal iliac artery ligation failed.⁵ Anjali Gupta et al reported a case of placenta percreta causing spontaneous rupture of uterus in late pregnancy and managed by closure of defect and putting B-Lynch suture together with bilateral uterine artery ligation.⁶

This technique is particularly useful when preserving the uterus and retaining fertility potential is extremely vital. Though only case reports are available so far to evaluate its efficacy, satisfactory homeostasis can be assessed immediately after its application. No apparent complication has been reported so far.

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