INTRODUCTION: Manual removal of placenta is a common obstetric procedure performed in the third stage of labor as a treatment of the retained placenta when it is undelivered for more than 30 minutes, according to WHO.[1] The incidence of retained placenta varies greatly, it is about 0.1% to 3.3% of vaginal deliveries.[2] In spite of many developments in the field of obstetrics, retained placenta continues to be the leading cause of maternal deaths due to high case fatality rate, hemorrhage and the complication related to its removal. The incidence and severity may vary in relation to low socio economic class, existing malnutrition, anemia, home deliveries and lack of facilities to manage hemorrhage and its complication.[3] This can be improved by health education, avoiding home delivery, provision of facilities for essential obstetric services by skilled health care providers in ensuring proper conduct of deliveries.[4] And avoiding life threatening conditions like PPH and maternal death.[5] We hereby present a case of retained placenta in non-communicating type of unicornuate uterus.

KEYWORDS: Retained placenta, unicornuate uterus, manual removal of placenta, hysterotomy.

CASE REPORT: 23 years old, P1L1 on immediate post natal day, was referred from PHC with history of retained placenta for duration of 4hrs. She delivered at 8:40pm and reached our hospital at 12:45am. On examination patient had severe pallor, PR-108 per minute, BP-110/70 mmHg. On per abdominal examination, Uterus was contracted and retracted about 24-26 weeks size. Per speculum examination cord was seen through external os with minimal bleeding. Per vaginal examination cord felt through the external os, internal os was closed. Her Hb was 7.0 gm%, blood group was a positive, platelet count and coagulation profile were within normal limits.

After arranging adequate blood, patient was posted for MRP. Under general anesthesia, MRP was tried and was unsuccessful, and immediate decision for laparotomy was taken. On opening the abdomen, a unicornuate uterus with non-communicating horn of about 24-26weeks size with plenty of blood vessels at the fundal region fig. (a) the bladder was identified, separated and pushed down. Hysterotomy was done, placenta found separated and retained in the cavity was removed in Toto. Uterine incision was closed in two layers. Post-operative period was uneventful. Sutures were removed on 8th post-operative day and patient was discharged. With counseling about spacing for future pregnancy and if pregnancy occurs she is a high risk case, should report to hospital early with regular ante-natal care. If unsuccessful, then manual removal of the placenta should be done.

DISCUSSION: Retained placenta is potentially life threatening condition and a common cause of maternal death from post-partum hemorrhage (PPH).[5,6] About 15-20% of maternal deaths are from PPH due to retained placenta, which requires manual removal of placenta. The manual removal of placenta is a common obstetric procedure performed in third stage of labor as treatment for retained placenta, when it is undelivered for more than 30minutes, manual removal is advised at any time.
between 30 minutes to 1 hour in the third stage.[2,3] Again the choice of removal depends upon balance between PPH if placenta is undelivered. Sometimes there may be spontaneous expulsion after 60 minutes or medical methods like IV oxytocin, intraumbilical oxytocin injections, imiprostadine and per rectal misopristol are given to expulsion of placenta.

There are well known risk factors as already stated for retention of placenta. In our case the rudimentary non-communicating unicornuate uterus was the cause for retention. According to American Fertility Society Classification of Mullarian Anomalies it fits in Class2 group, where unicornuate uterus can present alone or with rudimentary horn or bulb on opposite side. According to Heinmen and associates most rudimentary horns were non-communicating and most of the times it may be associated with urinary tract anomalies like pelvic, horse-shoe kidney or hypoplasic or absent kidney.

The reproductive performance according to them in a unicornuate uterus is poorest with fetal survival (40%) of all uterine anomalies, the abnormal shape, in sufficient muscle mass, reduced uterine volume and inability to expand are causes for poor obstetric outcome. The other obstetric problem encountered with this anomaly is that if pregnancy occurs in rudimentary non-communicating uterine horn, there may be signs and symptoms of ectopic pregnancy which eventually rupture, if not detected early there may be severe intraperitoneal hemorrhage and shock. Sometimes death can occur within few minutes.

**The risk factors for retention of placenta are:**

1. Manual removal of placenta at a previous birth.
2. Vigorous and repeated curettage.
3. Presence of sub mucous fibroids, with subsequent atrophy of overlying mucosa.
4. Placenta previa.
5. Pregnancy in a uterine diverticulum.
6. Previous caesarean scar.
7. After previous treatment by radioactive radium.

Of all the above factors, before attempting for manual removal of placenta, the diagnosis like whether placenta separated and retained or non-separated and retained has to be confirmed and risk factors for retention has to be ruled out, and plan of management must be tailored accordingly, so that the procedure is uneventful. As the unicornuate uterus was the cause for retention of placenta in our case the findings of laparotomy revealed- uterus lying obliquely, after opening the uterus the placenta was lying in the uterine cavity which was separated and internal os was closed tightly.
Retained placenta removed surgically through hysterotomy.

**Fig. 1(A) & 1(B)**

**Fig. 2 (A):** Unicornuate Uterus with rudimentary non Communicating horn.
**Fig. 2 (B):** unicornuate uterus at the end of the procedure.

**CONCLUSION:** Retained placenta still remains a potentially life-threatening condition if not treated early due to associated hemorrhage, infection, as well as complications related to its removal. The incidence and severity may be decreased by active management of third stage of labor and early anticipation of problems related to retention of placenta. The skilled person should train birth attendants, who are rendering the services in remote area to handle the situations or early referral of cases to higher centers for further management which can definitely reduce this catastrophe.
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