

## CAESAREAN HYSTERECTOMY ON THE RISE : A CONSEQUENCE OF INCREASED RATE OF CESAREAN SECTIONS

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### SUMMARY

There has been a rise in the rate of cesarean hysterectomy over the last 10 years. The finding of morbid adherence of placentae over the previous uterine scar which bleed relentlessly because of partial separation, poses a problem of tremendous magnitude. We present a study of 17 such cases who had to undergo cesarean hysterectomy because of placenta accreta/increta/percreta. There was known association of low placental insertion in half the cases, where routine ultrasound was done. There was fortunately no maternal mortality. This study is to highlight the technical difficulties in cesarean hysterectomy and highlight increased rate of cesarean section in the present obstetrical era, resulting in a higher incidence of placental adherence to the cesarean scar.

### INTRODUCTION

The Cesarean hysterectomy has been in practice for over 100 years. Recently the indication for the operation have been changing. It has been found that previous scar of cesarean section very often gets involved in the insertion of the placenta, and this placenta has a tendency to become

accreta/increta/percreta over the scar.

In these cases post partum haemorrhage result because of incomplete separation of the placenta, which is adherent at the scar site. This post partum haemorrhage is very often controlled by removing the placenta piece meal or packing the uterus as conservative methods, after a vaginal delivery. However, when cesarean is done and the condition is seen under direct vision, of the surgeon

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during the cesarean section, the extent of infiltration of placenta into uterine musculature is assessed and often an indulgent surgeon attempts to remove the uterus after seeing the extent of infiltration resulting in greater incidence of hysterectomy today because the rate of cesarean section has gone up.

#### **MATERIAL AND METHODS**

In our unit we have performed 17 cesarean hysterectomies over the last 10 years, where the placenta had infiltrated into the previous cesarean scar tissue. Most of these patients have been detected to have a low anterior placental insertion by an Ultrasonographic examination, even before a repeat cesarean section was done, which kept us guarded regarding the necessity of doing cesarean hysterectomy during the repeat cesarean section, and the importance of the presence of a senior during the repeat cesarean section.

Sometimes these patients have other problems also, apart from the multiple previous cesarean sections and low anterior insertion of placenta. A technically unusual case is that of 32 years Promila who came to us in her 5th pregnancy. She had aborted twice before and had 2 successful pregnancies delivered by cesarean sections.

When she was pregnant for the 5th time she reported at four months pregnancy with bulging membranes. The placenta was low lying and anteriorly placed as seen on USG, but the patient was very keen to progress with the pregnancy. She was given exaggerated head low position and complete bed rest for 5 days. She didn't abort and to our surprise,

the bulging of membrane also disappeared, reforming the cervix.

USG confirmed a live fetus of 15 wks. A cerclage stitch (modified Shirodkar technique) was taken and the pregnancy progressed very smoothly.

At 30 wks., the USG, revealed that the placenta was definitely previa and anterior. She went into labour at 35 wks. With a severe bout of antepartum haemorrhage due to placenta praevia. The contractions were mild and after starting blood we took her up for cesarean section. The baby was 2.5 kg. male and has fortunately survived after being in the premature ward for one month.

But to our horror, on the operation table the placenta was found infiltrating the uterine musculature and outerwall of the urinary bladder. To compound the problem, the patient started bleeding heavily after the cesarean delivery. Hysterectomy appeared to be the only answer which was performed with meticulous care, avoiding injury to the bladder and urinary tracts.

The dissection of urinary bladder in these cases becomes very trying as the anatomical planes have been markedly disturbed due to the infiltrating placenta.

May be nature wanted to induce an early abortion, in that case the horror story of the placenta infiltrating into the bladder area would have been avoided.

We have seen this story being repeated more often, today, due to better conservative, medical and surgical techniques for fetal salvage. The same bladder infiltration has been repeated on two other occasions in our unit. We are a referral teaching unit connected with

department of Obstetrics and Gynaecology, Sir. J.J. Group of University Hospitals, Bombay, draining a large section of population; from government institutions even upto a radius of 100 Kms.

The placenta in all these cases were low lying. There were 10 accreta, 4 increta and 3 percreta cases (Table I). In the three percreta cases the urinary bladder was found to be infiltrated by placental tissue. All these cases were known to have low lying placenta during the antenatal period. We therefore feel it mandatory to do routine USG to localise the implantation of the placenta in cases of previous cesarean sections to forecast the difficulties for the surgeon when the need arises for repeat cesarean section at term.

All our cases had previous lower segment cesarean sections except one case which had a classical scar. Ten patients had 2 or more previous cesarean sections. And 7 cases had only one previous section (Table II). From this it is also clear that the infiltration of a placenta into the uterine musculature and further deep into bladder wall it more likely to occur with more previous cesarean sections. 9 patients were

**Table I**  
**Pathological Finding**

	Cases	Percentage
Placenta Accreta	10	62.5
Placenta Increta	4	25
Placenta Percreta	2	12.5
Placenta Praevia	13	76

**Table II**

**Past history of cesarean sections**

Number of cesarean section	Cases	Percentage
One	7	41.2
Two	7	41.2
Three	2	11.8
> Three	1	5.9

referred to us for antepartum and intrapartum haemorrhage, the rest of 8 were picked up during the antenatal period by USG examination as having placenta praevia. In these 8 cases we were prepared and anticipated antepartum haemorrhage while the other 9 cases presented to us as emergency cases of APH. (Table III).

Our outcome has been heartening and we are sure that if the complication is anticipated and we are prepared for it, we should have excellent results. We had no maternal mortality. Out of 17 cesarean

**Table III**

**Present indications for cesarean section**

Indication	No. of cases	Percentage
APH	9	52.8
Placenta praevia	13	76
Previous 2 or > 2 cesarean sections	10	58.8
Fetal distress	3	10.8
Malpresentation	2	10.2

hysterectomies done, 15 babies were salvaged and two babies were lost due to prematurity and birth asphyxia.

Delivery of baby can be very difficult with an anterior placenta previa. A classical incision was resorted to in 3 cases which were for ligation of the tubes. Other cases which also wanted ligation had a high transverse incision (11 cases) or inverted T-incision (3 cases) to remove the baby.

### DISCUSSION

Abnormal adherence of placenta selectively at places where decidual formation is less likely as in implantation in lower uterine segment, or over the scar of previous cesarean section which results in partial separation of placenta and ultimately leads to uncontrolled bleeding.

The problem depends upon depth and extent of invasion of myometrium and the urinary bladder (Cario et al 1983, Collins et al 1985) as in 2 of our cases where surgery became technically demanding in dissection of bladder. Hemorrhage is profuse when delivery of such placenta is attempted and emergency hysterectomy becomes the ideal choice for maternal welfare, (Clark et al 1984, Kamani et al 1987, Rachagan et al 1984). The cesarean hysterectomy is technically difficult because of increased vascularity, distorted anatomy due to enlarged uterus, fragility of oedematous pelvic tissue and adhesions of prior cesarean section which predispose to urinary tract injuries even leading to maternal mortality. (Rachagan et al, 1984). We did not have any maternal mortality, as a very senior surgeon was always present in anticipation of difficulties.

From our experience we share the following technical points for cesarean hysterectomy.

(1) A vital decision is the incision on the uterus with a live baby. A vertical or inverted T-incision (if further pregnancies are required) is very useful. The transverse incision is also very high to avoid going through the placenta.

(2) Cesarean hysterectomy can be done very efficiently through a transverse abdominal incision. Ours were all done through abdominal transverse even if previous cesarean sections were through a midline incision.

(3) Manipulation of uterus should be such that there is no stretch over infundibulopelvic ligament so as to avoid neurogenic shock, during the surgery.

(4) Bladder dissection is very critical and very often we may have to leave behind the part of uterine wall, on the bladder. A light monopolar or bipolar cautery has been used successfully without complications in all 17 cases.

(5) In two of the cases that we had the Bladder wall completely infiltrated by placental tissue and was bleeding that part of bladder was excised and bladder wall repaired at the primary sitting. Both cases healed well.

(6) Bladder dissection should be slow, meticulous and careful to begin with, once you reach the right plane, you can proceed fast by a blunt finger dissection and not a sponge.

Incidence of placenta accreta, increta, percreta in our study was 1/1375 deliveries. There is also strong association of placenta praevia and placenta accreta with a previous LSCS. In our series of

placenta accreta, placenta praevia was found in thirteen cases out of 17 cases. Clark et al (1985) observed such association ranging from 34% to 64%. Read et al (1980) also found placenta accreta as 1/2562 deliveries where placenta praevia was associated in 63.6% cases. He showed that 43% of cases had undergone previous cesarean sections, which ultimately ended in hysterectomy. Out of 17 cases of morbid adherent placenta we observed, all had history of prior cesarean sections. Clark et al (1984) documented development of placenta accreta in those cases which had previous cesarean sections. Clark (1985) in his study from 1977 to 1983 observed increasing trend in placenta accreta and placenta praevia in associated with previous cesarean section scars from 5% to 67%. Kamani et al (1987) had presented similar observations.

Fox et al (1972) favoured cesarean hysterectomy to conservative measures for better maternal survival. We also observed increasing number of cases of morbid adherent placenta over the uterine scars of previous cesarean sections. All the cases were treated by hysterectomy and there was no maternal mortality. Clark et al (1984) showed encouraging results after emergency hysterectomy and the indication was morbid adherent placenta

in 57% of cases. There has also been rising trend in the rate of cesarean section in the past decade from 3% to 10.9%. Arora and Oumachgui (1991) had reported doubling of cesarean section rate in six years.

In view of increase in the occurrence of morbid adherent placenta over the uterine scars of previous cesarean sections which were treated by hysterectomy and the rising rate of cesarean sections in modern obstetrics practice, especially in the last decade the correlation between more cesarean hysterectomy from morbid adherence of placenta on the previous cesarean section scars is going to be on the rise.

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