

## OBSTETRICAL HYSTERECTOMIES IN RURAL PRACTICE A CRITICAL EVALUATION OF 100 CONSECUTIVE CASES

by

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Hysterectomy in obstetrics is commonly done as an emergency lifesaving procedure and in desperate circumstances. Too often the judgement has to be executed while a moment counts a lot in favour of conservatism vis-a-vis radicalism. As the indications are not pinpointed and are

very flexible, an attempt is made to evaluate the circumstances which may lead to hysterectomy specially in adverse environment.

### Materials

The materials were from personal

TABLE III  
Showing the Indications of Hysterectomy

Indications	No. of cases	Percentage
<b>(A) Early Months</b>		
1. Molar Pregnancy	12	12
2. Accident during D + E	5	5
3. Interstitial pregnancy (rupture)	2	2
4. Septic abortion	1	1
	20	20
<b>(B) Late Pregnancy, Labour and Puerparium</b>		
1. Rupture Uterus	67	67
2. Caesarean Hysterectomy	10	10
(a) Adherent placenta (morbid)	4	
(b) Gross septic uterus	3	
(c) Uterine atony	1	
(d) Couvelaire Uterus	1	
(e) Broad ligament haematoma	1	
3. Secondary abdominal pregnancy	2	2
4. P.P.H.	1	1
	80	80

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series of consecutive 100 indicated obstetrical hysterectomies of one of the authors (D.C.D.) while attached to District Hospitals, Jalpaiguri, Suri and Chinsurah of West Bengal covering a period from 1965

to 1973. During the same period there were 19888 births and 745 Caesarean Sections, giving a frequency of obstetrical hysterectomy in relation to delivery and section of 1 in 198 and 1 in 7.4 respectively.

#### Analysis

**Age:** Except in 9, all belonged to ages 25+, with maximum distribution being in the age group of 30-34 viz., 37%.

**Parity:** While there was no case at first birth but in 45% cases hysterectomy was done in parity 5+.

In early months, molar pregnancy and accidents following D+C—were the principle indications, together constituting 85% of cases (17 out of 20), whereas in later months, rupture uterus and caesarean hysterectomy were responsible in 96.2% (77 out of 80). One out of 74 caesarean sections during the period had hysterectomy.

**Type of hysterectomy:** Subtotal hysterectomy was done in 99 and in 1, total hysterectomy was done.

**Maternal mortality and morbidity:** There were 21 deaths out of 67 hysterectomies (31.3%) done for rupture uterus and there were 6 deaths out of 33 hysterectomies (18.2%) done for other causes. The overall deaths were 27 (27%). Morbidity included wound infection in 18, peritonitis in 5, burst abdomen in 9, decubitous ulcer in 4, V.V.F. in 2 and thrombophlebitis in 11.

#### Discussion with Comments

**Incidence:** The incidence of 1 in 198 found in the series is indeed high. While a similar high incidence of 1 in 151 has been mentioned by Wilars, *et al* (1974), a comparatively lower incidence of 1 in 456 was mentioned by Oumachigui and Nayak (1976). The variation of the frequency is principally influenced by the

prevalance of rupture uterus and its dilution by number of deliveries in the institution concerned and to some extent due to inclusion of occasional cases of elective hysterectomies.

While it is imperative to consider age and family size before contemplating hysterectomy, one should not give undue importance in dire emergency where an alternative to hysterectomy may lead to catastrophic consequence. Fortunately all in the present series had got desired number of children or atleast one. But one may not be so fortunate. Early detection of pathology, prompt and effective institution of treatment, adequate blood transfusion facilities and ancillary staffs are the essential armamentarium to execute conservative approach to some of the unfortunate mothers desirous of having child.

#### Indications

##### Early Months

In the early months, hysterectomy in molar pregnancy was found topping the list. During the period under review there were 90 cases of hydatidiform mole and hysterectomy was done in 12 (13.3%). While during recent years concept of management of molar pregnancy has been markedly changed with the advent of cytotoxic drugs and better follow up by immunological study of urine but the same could not be extended squarely in rural areas. Advanced age with high parity in association with severe anaemia, unfavourable cervix, lack of blood transfusion facilities and follow up of the cases are the factors to be considered. Hysterectomy in such circumstances not only gives immediate safety to the patients but reasonably ensures prophylaxis against development of choriocarcinoma in such high risk group.

Injury to the uterus is an unpredictable

complication in D&C operation. This occurs more frequently while attempting termination than while evacuating the uterus after the abortion process starts. In 4 out of 5 cases in the series, the injury was inflicted while attempting termination outside. But for this there is no room of complacency and that it can occur even in the hands of expert is gradually being revealed in recent publications after the implementation of M.T.P. Act. Vaginal evacuation in missed abortion poses a difficult and risky procedure at times. Firm Cervix unyielding to dilatation and dense attachment of the conceptus to the uterine wall may be the responsible factor for injury during evacuation. Lateral tear of the cervix with involvement of major vessels leads to brisk haemorrhage either visible outside or accumulating in the broad ligament with development of shock. In parous woman laparotomy followed by hysterectomy is probably the rational approach while in nulliparous one may have to take a conservative approach by repairing the rent, securing haemostasis if possible and if not ligating internal iliac artery of the affected side. In one case of the series there was injury to the omental vessels which was accidentally discovered.

In spite of prevailing controversy aggressive management is gradually gaining unequivocal acceptance in selected cases of septic abortion. Persistence of hypotension or generalised peritonitis not responding to conservative treatment with reasonable period of trial dictates laparotomy. Unsuspected perforation of the uterus, injury to the gut or collection of pus in the general peritoneal cavity could only be revealed on laparotomy and be tackled accordingly. Detection of injury or gangrenous uterus necessitates hysterectomy thereby removing the

source of infection. The isolated hysterectomy case in the series had perforation of uterus which was detected only on laparotomy.

Interstitial pregnancy with consequent morbid pathological changes invariably leads to rupture. Due to big size of the rent, increased vascularity and massive intraperitoneal haemorrhage there is hardly any scope short of hysterectomy.

#### *Late Months and Labour*

In the later months of pregnancy and labour the commonest indication was rupture uterus mostly of obstructive type. Out of 74 uterine ruptures met during the period under review, 67 ended in hysterectomy (Dutta, *et al* 1977). Wilars, *et al* (1974) mentioned this indication in 45% cases of obstetrical hysterectomy. There is hardly any scope of repair in obstructive rupture where the margins are ragged, irregular and often necrotic and one may even have to ignore the age and family size while taking decision to remove the uterus.

Elective caesarean hysterectomy which is often practised in some places as an effective sterilisation procedure or as prophylaxis against future gynaecological disorders has not gained unequivocal acceptance. Instead, caesarean hysterectomy is more frequently employed as an emergency life saving procedure. During the period under review 1 out of 74 sections ended in hysterectomy. While a decision to remove the uterus can be taken easily it is indeed difficult to decide on a conservative approach when the condition of the patient is grave.

Morbidly adherent placenta during section can be effectively tackled by hysterectomy in a parous patient. If the uterus is to be preserved, tight intra-uterine plugging and closing the uterine incision over it is quite effective. In the

only isolated case in this series the uterus was saved with this method.

If the uterine conservatism is not essential, it is better to decide hysterectomy in grossly septic uterus for an uneventful recovery. The hazards of section in case of prolonged and obstructed labour has been focussed by Dutta *et al* (1978).

In the series of Wilars, *et al* (1974) it was met in 8 out of 81 caesarean hysterectomies. In the present series only an isolated case ended in hysterectomy. Conventional oxytocic therapy, lowering the plane of anaesthesia, quick suturing of the uterine incision and massaging the uterus with hot towels are quite effective in almost every case to make the uterus contract. It is indeed difficult to categorise the end point of wait and watch specially in odd circumstances. An early decision to perform hysterectomy more often saves the mother. Only with experience one can arrive at proper decision of conservatism vis-a-vis radicalism.

Wilars, *et al* (1974) mentioned a 26% incidence of caesarean hysterectomy in abruptio placenta in contrast to only an isolated instance in the present series. Late arrival of patients and laparotomy done in extrimis may be the reasons for such high incidence of hysterectomy in Wilars series. Couvalaire uterus per se is not an indication for hysterectomy as coagulation defect is the main problem.

While prompt and effective compression of the injured vessels by the fingers and their replacement by ligature produce effective hemostasis a delay or vacillation may lead to brisk haemorrhage often leading to broad ligament haematoma. While in parous women one can justify hysterectomy but in others, one may have to do repair and if necessary to tie the internal iliac artery of the affected side.

It is axiom that if the placenta is attached to a removable organ, the organ with the attached placenta is to be removed specially if the placenta is vascular. In both the cases of the series the placenta was attached to the uterus and hysterectomy was done.

In the study of Barclay (1970), atonic P.P.H. headed the list in the indications of emergency hysterectomy. Wilars, *et al* (1974) mentioned 9 cases out of 114. In the present series only an isolated case of fibroid causing P.P.H. ended in hysterectomy. Efficient management of third stage, early detection of haemorrhage and its prompt and effective rectification aided by replacement therapy minimise resorting to the drastic step significantly. If one is forced to decide upon hysterectomy it is wiser to perform it earlier before the condition further deteriorates. Similar opinion has also been expressed by Oumachigui and Nayak (1976).

Considering the dire emergency, low general condition of the patient, inadequate ancillary facilities and morbid pathological changes surrounding the lower segment specially in rupture uterus a quick subtotal hysterectomy is preferred. Wilars, *et al* (1974) also mentioned only 2 cases of total hysterectomy in a series of 114.

The series included only the indicated hysterectomy where uterine rupture was the responsible factor in 67% cases. This coupled with inadequate ancillary facilities lead to high maternal deaths (27%). Wilars, *et al* (1974) mentioned 21 deaths out of 114. Early detection, prompt and effective institution of treatment with adequate ancillary facilities and early decision of hysterectomy could have saved 1 or 2 mothers.

### Rate of Cervical Dilatation

In primigravidaes rate of cervical dilatation of more than 3 cm/hr was more with injection Epidosin (15%) as compared with Epidosin and pethidine. Rate of cervical dilatation was even less (6.2%) with injection Pethidine alone. In multigravidaes the rate was 25.8% with combination of injection Pethidine and Epidosin as compared to 16.6% with injection Pethidine alone. The average cervical dilatation rate/hr in primigravidaes was 0.85 cm in group A, 1.05 cm in group B and 0.95 cm in group C whereas in multigravidaes it was 2.25 cm

this study. These were foetal distress and maternal tachycardia. There was no effect on B.P. in either 113 normotensive or in 37 hypertensive cases. Only it was found that there was sudden maternal tachycardia of upto 150 beats/min in group B & C patients and it subsided by itself within half an hour in all but 1 case in group B. This case went into clinical shock for no obvious cause after delivery and had to be resuscitated in intensive care unit for 2 days and finally recovered completely.

### Efficacy of Drugs

#### Efficacy of Drugs Based on Time Taken For Full Dilatation of Cervix

	Average time difference		
	A/B	A/C	B/C
Mean difference	0.87	0.58	0.29
P Value	>0.05	>0.05	>0.05

in group A, 2.71 in group B and 1.48 cm in group C.

### Average Duration of Full Dilatation of Cervix

The average time taken in hours for full dilatation of cervix in primigravidaes was  $6.17 \pm 3.37$  in group A,  $4.99 \pm 3.11$  in group B and  $4.84 \pm 1.91$  in group C, while as in multigravidaes it was  $1.87 \pm 0.57$  in group A,  $1.75 \pm 11.14$  in group B and  $2.94 \pm 2.10$  in group C. It was also observed that the average time taken for full dilatation of cervix became shorter after injection Epidosin irrespective of the initial cervical dilatation and parity of the case; and as parity increased the initial cervix dilatation was more, the time taken for full dilatation of cervix was less.

### Complications

Very few complications were seen in

The observations were analysed statistically and effect of parity on cervical dilatation studied. It was seen that parity has positive impact and showed significant results at  $P < 0.05$ . On the other hand treatment effect did not indicate any positive impact on the dilatation and the results were insignificant at  $P > 0.05$ . Same was true of the time taken for full dilatation of cervix. The average time difference between group A and B, A & C and B and C was not significant. The beneficial effect observed is due to parity rather than the treatment as  $P > 0.05$ .

### Summary and Conclusion

One hundred and fifty patients with delayed cervical dilatation due to incoordinate uterine action or cervical dystocia were taken for this study and equal number of patients were given 100

mg of injection Pethidine I.M. (group A) or injection Epidosin 1 amp. I.M. (Group B) or a combination of injection Pethidine 100 mg and 1 amp injection Epidosin I.M. (Group C) to study the effect of the treatment on cervical dilatation.

1. In Primiparae rate of cervical dilatation was more with Epidosin than with combination of Epidosin and Pethidine and least with Pethidine.

2. In Multiparae the rate of cervical dilatation was more with combination of Epidosin and Pethidine and least with Pethidine.

3. The average time taken for full dilatation of cervix was less after Epidosin irrespective of initial cervical dilatation and parity.

4. Very few complications were observed after the treatment. Some maternal tachycardia of short duration was found in Group B and C.

5. On statistical analysis the treatment effect did not indicate any positive impact on the dilatation of cervix and results were insignificant at  $P > 0.05$ .

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Group	Primiparae	Multiparae
A	100 mg Pethidine I.M.	100 mg Pethidine I.M.
B	1 amp Epidosin I.M.	1 amp Epidosin I.M.
C	100 mg Pethidine I.M. + 1 amp Epidosin I.M.	100 mg Pethidine I.M. + 1 amp Epidosin I.M.

The observations were analyzed statistically and effect of parity on cervical dilatation studied. It was seen that parity has positive impact and showed significant results at  $P < 0.05$ . On the other hand treatment effect did not indicate any positive impact on the dilatation and the results were insignificant at  $P > 0.05$ . There was no difference in time taken for full dilatation of cervix. The average time difference between group A and B and C was not significant. The results of other studies are not in conformity with the treatment.

The average time taken to obtain the full dilatation of cervix in primigravidae was 17.5 ± 3.5 in group A, 15.5 ± 2.5 in group B and 16.5 ± 3.5 in group C. In multiparae it was 12.5 ± 2.5 in group A, 11.5 ± 2.5 in group B and 12.5 ± 2.5 in group C. It was also observed that the average time taken for full dilatation of cervix became shorter after Epidosin irrespective of the initial cervical dilatation and parity. In the case of primigravidae the initial cervical dilatation was more than 1 cm before the dilatation of cervix.

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