

HAZARDS OF FIRST TRIMESTER TERMINATIONS

(First 550 cases at B. Y. L. Nair Ch. Hospital from April 72 to 74)

by

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Surgical evacuation of the uterus is presently the method of choice for termination of pregnancy when the period of gestation is 12 weeks or less. In recent years there has been a considerable improvement in the surgical techniques. The suction cannulae have completely replaced the conventional obstetric dilatation and curettage making the procedure simpler, quicker, with less loss of blood. At many places terminations are now carried out as outpatient procedure and are mainly done under local anaesthesia supplemented with analgesics. This has further minimized the complications.

However, despite the obvious improvements that have been made in the techniques the procedure is still primarily a surgical one and hence has an inherent morbidity and mortality. In this paper we are presenting the various complications observed by us.

This is a retrospective study of 550 terminations in the first trimester done at B. Y. L. Nair Charitable Hospital from 1st April 1972 to 30th April 1974. As compared to the other series, this series

is very small but this is a specially selected study in many respects. From April 1972 to April 1974 M. T. P.s. were done only by one unit and initially only senior staff members were doing M. T. P.s. as the residents were not trained for the same. All the patients were selected from the O.P.D. and were admitted on the previous day for detailed examination and investigation. In all the cases, haemoglobin estimation, urine examination, blood grouping and Rh typing and 'screening of the chest' were done. All the terminations were done in the operation theatre under general anaesthesia. The patients were observed in the wards for few hours after the procedure and were examined by a senior staff before discharge. All of them were given Tetracyclin capsules for 5 days and were called for follow up after one week. The hospital load and expenses were definitely higher but we had very few complications and no mortality.

From May 1974 all the Units started doing terminations, mainly residents were in charge of doing terminations and they were done as 'O. P. D. procedure'. In this later series there was definite increase in the number of complications like perforation, cervical tears, haemorrhage, rectal and bladder trauma and pelvic infection.

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Selection of the patients and procedure

The patients who had a history of 3 months amenorrhoea or less and when the uterine size was upto 12 weeks or less were selected for this procedure. In 10 cases we have done terminations upto 14 weeks size of the uterus. The main indications were—poor or ill health of either the patient or husband, multiparity, poor socio-economic state, mental stress, for restricting the number of children and family planning. Few were done for failure of contraceptives and 4 were done for medical diseases—heart disease and pulmonary tuberculosis. Thirty-five patients were single and 3 were widowed.

From 1972-1973 conventional D and C was done as suction cannulae were not available. The procedure took very long time (20-30 minutes) there used to be more bleeding with higher incidence of internal cervical tears. The whole operation appeared to be quite messy. From 1973 vacuum cannulae were used—the procedure became simpler, quicker (less than 10 minutes) with less bleeding and fewer complications. In 1972 abdominal hysterotomies were done in 7 cases who were willing for tube ligations. This was done only for trial. Later on in all cases vaginal evacuation and tube ligations were done. In one case we did subtotal hysterectomy. She was a road side beggar with a history of severe menorrhagia and polymenorrhoea. Subtotal hysterectomy was done as it is quicker.

Anaesthesia: In 380 cases (69.9%) general anaesthesia was used. In 153 cases (27.8%) where terminations were combined with tube ligations, spinal anaesthesia was used. In only 17 cases (2.3%) local anaesthesia was used. The incidence of haemorrhage was higher with general anaesthesia in spite of Methergin injection and pitocin drip.

Initially packing of the vagina was done in all the cases to reduce the oozing from the cervix due to vulcellum bite. (two vulcellum forceps were used to get the proper grip of the cervix) The pack was removed after 2-4 hours observation and the patients were discharged, unless complications like excessive bleeding or perforation were suspected. All the patients received Tetracyclin and B complex for five days and were examined after one week and one month, Post-operatively. Both the 'follow-up' and family planning response was poor.

Age: Seventy-six patients were less than 20 years of age (13.81%), 181 between 21 and 25, 172 between 26-30, 82 from 31-35, 33 from 36-40 years. Four were between 41-45 years.

Marital status: Out of 550 cases 512 were married, 35 were single and 3 were widows.

Parity: Seventy-six patients were nulliparae, 105 primiparae, 144 2nd 96 3rd, 70 4th, 25 5th, and 29 were grand multiparae.

Size of the Uterus: One hundred and thirty-seven patients had 6 weeks size uterus, 209, had 8 weeks, 113 had 10 weeks 81 had 12 weeks and 10 patients had 14 weeks' size uterus.

Type of Operation: In 150 cases conventional obst. D. and C. was done, 386 cases suction cannulae were used. In 7 cases abdominal hysterotomy and tube ligation were done, in 6 cases menstrual regulation syringe was used and in 1 case subtotal hysterectomy was done.

Family Planning advice: Tube ligations were done in 195 cases (35.45%) and in 113 cases Lippes loops were inserted (20.54%). About 1.2% agreed for oral pills and remaining refused to follow any family planning advise.

Complications: These have been

divided into complications during the operations, immediate and delayed post-operative complications.

Table I—Shows the complications observed by us.

tory laparotomy was done. The uterus was intact, there was no perforation. Hysterotomy and tube ligation was done. She needed 1 unit of blood. The second case also occurred in 1972. She was 29

TABLE I
Complications During the Operation

Complications	No. of cases	Percentage
Haemorrhage (mild haemorrhage, no blood transfusion)	34	6.23%
Haemorrhage (moderate to severe requiring blood transfusion)	3	0.54%
Perforation	1	0.18%
Internal cervical tears	3	0.54%
Difficulty in dilatation	2	0.36%
Difficulty in removing Karman's cannula	2	0.36%
Fall of blood pressure	2	0.36%
Cardiac arrest	1	0.18%
Bleeding from vulcellum bite	12	2.18%
Difficulty in vaginal tube ligation	3	0.54%

TABLE II
Immediate Post-operative Complications

Complications	No. of cases	Percentage
Haemorrhage: from uterus	13	2.36%
from vulcellum bite	12	2.18%
Repeat D. & C.	2	0.36%
Sepsis	4	0.72%
Acute psychosis	1	0.18%

Haemorrhage: This was the commonest complication of the termination, observed during the operation. It was seen in 37 out of 550 cases, in 34 cases the bleeding was mild and was controlled by inj. Methergin and pitocin drip but in 3 cases there was moderate to severe bleeding and these patients received blood transfusion. The first case was operated in 1972. She was 32 years, 2nd para had 2 months amenorrhoea, uterus was 8 weeks, conventional obstetric D and C was done by a senior staff under general anaesthesia. She started bleeding profusely, perforation of the uterus was suspected. As the evacuation was incomplete explora-

years, 3rd gravida, 3 months amenorrhoea. The uterus was slightly bigger than 12 weeks size. Conventional obstetric D and C was done by a senior staff under general anaesthesia. She was bleeding profusely from the uterus and also from the internal cervical tear. She was given Pitocin drip, inj. methergin and light intra-uterine and cervical packing was done. She was given 1 unit of blood. She continued to bleed post-operatively and required repeat D and C after a week. The third patient was operated in 1974. She was 29 years, 3rd gravida, had 2½ months amenorrhoea, uterus was 12 weeks size. Suction curettage was done

by a resident under general anaesthesia. She had severe bleeding and collapsed during operation. There was internal cervical tear. She was also given Pitocin, inj. methergin and tight intrauterine and cervical packing was done. She received 2 units of blood and packing had to be done three times.

An attempt was made to correlate the incidence of haemorrhage with various parameters as follows:

Age: The incidence was highest in patients who were less than 20 years, 11 out of 76 cases (13.1%) 8 were between 31-35 years (out of 92 cases) 2 out of 33 were 36-40 years, 11 out of 181 were of 21-25 years.

Parity: The incidence was highest in nullipara, 8 out of 76 (10.56%). As the parity increased the haemorrhage was seen less frequently.

Size of the uterus: It was highest when the uterus was of 12 weeks or more, the incidence was 13.25%. In 10 weeks' 6.33% and the incidence was very low when the size was 6-8 weeks.

Type of operation: The bleeding was more with conventional D and C—17.9% as compared to suction curettage 8.25%. It was also more when general anaesthesia was used.

In the present series the incidence of moderate to severe bleeding comes to 0.54%—(3 out of 550 cases). In the first case it was due to incomplete evacuation and in remaining 2 cases due to internal cervical tears. In all cases haemorrhage could be controlled and none required hysterectomy. Nathanson (1972) has reported incidence of haemorrhage as 2.1 per 1000, Selig Neubardt and Schulman had 5% haemorrhage rate but none required blood transfusion. Sood (1971) has reported severe haemorrhage rate as 2.5%; 6 patients out of 630 had severe

haemorrhage and they required hysterectomy, blood transfusion was needed in 3%.

Perforation: It was suspected in 3 cases on the basis of excessive bleeding. Two of them were explored and perforation was confirmed in only one case (0.18%). The third patient was observed. She improved and therefore was not explored. The perforation which was found in one case was on the anterior wall just above the internal os, it was sutured in 2 layers. The patient had an uneventful recovery.

Perforation is an inevitable complication of abortion. The incidence reported by various authors varies from 0.1 to 3%. Nathanson (1972) and Tietz (1971) have reported it as 1.4 to 2.5 per 1,000. Perforation of the lower uterine segment or fundus is a serious complication of surgical evacuation. It commonly occurs when the uterus is relatively large and the operator is inexperienced and also when there is a failure to maintain traction on the cervix. In our institute also in 1975 there were three perforations in 587 cases (0.91%) mainly because residents had operated and they were inexperienced.

In our series of 550 cases there was not a single case of rectal injury, intestinal trauma or injury to the urinary bladder. In 1975 there were two cases of rectal injury and 1 of bladder trauma—these were operated by the residents. Nathanson (1971) has reported a case of intestinal damage requiring excision and re-anastomosis, and in one case there was a bladder injury, and in one case the perforation was in right broad ligament lacerating the uterine vessels and requiring hysterectomy.

Internal Cervical Tears: These were seen in 3 cases (0.54%). In all the cases the uterine size was 12 weeks or more, and they occurred during dilatation and

were detected by internal examination. In all 3 cases few fibres were torn and the bleeding could be controlled by tight packing of the uterus and cervix. Only one of them required blood transfusion. Neubardt and Schulman (1972) have reported incidence of cervical lacerations as 4.5% (23 cases out of 500) Nathanson (1972) reported cervical trauma incidence as 2.4% and in 2 cases the tears extended upto internal os requiring repair.

There was difficulty in dilatation in 2 cases and difficulty in removing Karman's cannula in 2 cases. In one case the tip broke off. On sounding it could be felt just above internal os. An attempt was made to remove it, but failed. She was observed for 48 hours and was given antibiotics. She had no further complications. She was discharged. In the second case the tip broke in the cervical canal and could be removed easily.

Fall of blood pressure was observed in 2 cases (0.36%). They were resuscitated immediately. One patient developed cardiac arrest probably as a result of severe fall of blood pressure. The procedure was stopped. She was resuscitated and was operated after 8 days.

Bleeding from the Vulcellum bite: Two vulcellum forceps were used in all the cases to get proper grip of the cervix. Slight oozing from the cervix was observed in most of the cases but mild bleeding was seen in 12 cases (2.18%) and this could be controlled by packing the vagina for few hours. This bleeding could have been minimised by use of Allis forceps.

Difficulty in Vaginal Tube Ligation: This was seen in 3 cases out of 188 cases (1.5%). In all 3 cases there were adhesions due to previous operations like caesarean section or ventral suspension. In 2 cases abdominal tube ligation was done

and the last case refused it so was left alone.

Immediate Postoperative Complications: Table II shows the immediate postoperative complications.

Bleeding per vaginam was seen in 13 cases—in 10 cases it was mild and was controlled by packing. In 3 cases moderate bleeding occurred. 2 of them required repeat D and C, and in one tight intrauterine and cervical packing had to be done three times for internal cervical tears. All of them were given 1 unit of blood.

Re-evacuation after vaginal termination has been reported by various authors. In Sood's (1971) series it was necessary in 9.5%, and in Nathanson's (1971) series repeat curettage rate was 3.5 per 1000.

Bleeding from vulcellum bite persisted in 12 cases but could be controlled by tight packing of vagina. The pack was removed after 2-4 hours.

Pelvic infection: Four patients (0.72%) developed pelvic infection. It was mild in all and could be controlled by antibiotics only. None of them required colpotomy or exploration. Only one patient was re-admitted and remaining 3 had out-door treatment.

It is difficult to give the exact incidence of pelvic infection and postoperative fever, as follow up was improper and most patients with complications prefer to attend another hospital. The incidence of pelvic infection varies from 1-2%. Nathanson (1972) has reported it as 15 per 1000. Sood (1971) reported 3 cases of Septicaemia and one death in 630 cases. In our series such severe complications were not seen mainly because of proper selection, prior admission, terminations were done in the theatre and all received prophylactic antibiotics (Tetracyclin) for 5 days. One patient developed

acute psychosis after 8 days. She was a young primigravid patient, recently married and had major domestic problems. She was admitted and recovered completely with treatment.

Delayed Postoperative Complications

Irregular bleeding was observed in about 30% of cases. This was mainly seen in cases of terminations followed by loop insertions. Most were treated with calcium, methergin and R.C.K. tablets, some with hormonal treatment. In few cases where bleeding persisted loop was removed.

There was no mortality in 550 cases and no serious complication like septicaemia, injury to urinary bladder or intestine and severe cervical tears requiring hysterectomy.

Even in the best of hands and with the best of facilities abortion is not an entirely safe procedure, but neither is childbirth. In New York the abortion death rate of 33 per 1,00,000 is only slightly higher than the maternal death rate of 32 per 1,00,000.

In our hospital there were 25 maternal deaths in 5957 deliveries from 1st April, 1972 to 30 April, 1974 i.e. 4.2 per 1000 deliveries. Mishaps will occur and they will be kept to a minimum only when operations are performed in well equipped hospitals, by skilled gynaecologists who are well aware of the dangers.

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