UTERINE PERFORATIONS FOLLOWING ELECTIVE FIRST TRIMESTER ABORTION

by

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With the advent of liberalised abortion policy adopted in our country since 1972, there has been a phenomenal increase in the incidence of medical termination of pregnancy. There is an impression that termination of pregnancy in the first trimester is rather safe. But serious complications do occur, leading to maternal mortality and morbidity. Complications that we have encountered are uterine perforations, cervical injury, haemorrhage and sepsis.

Of these haemorrhage and sepsis have not been a major problem in our experience. The important hazard that we have encountered was uterine perforation. Detailed descriptions of the management of this problem is lacking in medical literature. Hence we are presenting 5 cases of uterine perforations that occurred in our institution.

Material and Methods

From 1st January 1976 to 30th June 1978, 4856 first trimester abortions were performed. Almost all the cases were done as outpatient procedure, except when the patients desired to undergo sterilization operation also. The abortions were performed by senior as well as junior members of the staff. During this period, 5 uterine perforations occurred. This works out as 1.03 perforations per 1000 abortions. In addition, 2 cases referred from outside were also managed. The sites of perforation were as follows:

1.	Fundus ..	1
2.	Anterior wall ..	2
3.	Lateral walls ..	2

The instruments producing perforations were curette in 3 cases and dilator in the remaining 2 cases. In all the cases the period of gestation was between 6 and 8 weeks. In all cases the cervix was dilated with Hegar's dilators under paracervical block analgesia except in I, where laminaria tent was used. In all these cases, evacuation was achieved by the conventional instruments, i.e., sponge holding forceps and curette. In 4 cases evacuation was complete when perforation was detected. In 1 of these the injury was detected only after 24 hours when abdomen was opened for sterilization procedure. This case did not show any systemic evidence of internal haemorrhage and other signs of injury to the internal organs. In 2 cases there were contusions of the small intestines and mesentery. In all cases, where perforations were detected, laparotomy was performed. In 3 cases hysterectomy was resorted to and in 2 suturing of the rent and tubal ligation were done.

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Discussion

Incidence of perforation reported in the literature shows wide variations with different authors, ranging from 0.4 to 15 perforations per 1000 abortions (Table I).

TABLE I
Incidence of perforation

Author	Incidence per 1,000
Courtney*	15
Pakter and Nelson*	1.8
Walton*	2
Tietze and Lewit*	3
Olsen, Nielsen and Ostengaard*	9
Beric and Kupressanin*	0.4
Nathanson*	0.8
Freiman and Wulff	1.4
Tandon *et al*	0.7
Ghosh	10
George and Devi	1.4

* Quoted by Nathanson, 1972.

In our series the incidence is 1.03 per 1000. The incidence of perforations will vary depending upon the experience of the surgeon, the method used and the period of gestation. In all reported series the incidence of perforations decreased with experience gained by the physician (Nathanson 1972). With suction curettage the chance of complication (mainly perforation) is less in comparison with the conventional method of evacuation. In our institution also termination of first trimester abortion with suction curettage is the preferred method. But maintenance and repair of these instruments still pose problems for us. Hence suction instruments are not always available to undertake the procedure. It has been reported by some authorities that the ideal time for termination of first trimester pregnancy is between 10 and 12 weeks, when cervical traction places the anteverted or retroverted uterus in the plane of vaginal axis (Freiman and Wulff 1977). But we are not in agreement with this view although in all our cases perforation occurred between 6 and 8 weeks. We are of the opinion that complications occurred because conventional methods of evacuation were adopted. With the use of vacuum suction with plastic curette we will be able to bring down this problem considerably. While dilators are being used the force used should be minimal and tip of the dilators should pass only a short distance beyond the internal os. The position of the uterus must be ascertained by a pelvic examination and sounding the uterus before starting the procedure. If there is difficulty in dilating the cervix, it can be achieved with slow gradual screw like movements of the dilators, taking into consideration the direction of the cervical canal and position of the uterus. Cervical dilatation must be performed very slowly using graduated dilators and taking particular precaution in multiparous patients. Here there may be considerable scarring of the cervix due to repeated deliveries and it is in these cases that we have had cervical injuries and perforations. This experience is contrary to the general impression that in the nulliparous patients there is difficulty in cervical dilatation.

Before deciding on the management of uterine perforations the following factors are to be taken into consideration:

1. Site of perforation.
2. Type of instruments used.
3. Whether the evacuation had been completed or not.
4. Whether there is internal haemorrhage, and
5. Injury to the extra-uterine organs, e.g., small bowel.

If the injury has not involved the extragenital structures and there is no evidence of internal bleeding, the abortion procedure can be completed carefully and the patient can be managed conservatively. If the suspected injury is extensive with involvement of extra uterine organs immediate exploratory laparotomy is mandatory. This is particularly so if the injury is on the lateral wall of the uterus where the uterine artery is likely to be injured. At laparotomy suturing of the rent with tubal ligation is the method of choice. In cases, where small bowel has been badly injured resection with end to end anastamosis has to be undertaken; where there is extensive haematoma formation with injury to uterine vessel, hysterectomy will have to be undertaken.

Summary

Experience of uterine perforations in the first trimester pregnancy termination is presented. This is one of the major hazards of termination of pregnancy. In our institution the incidence of perforation is 1.03 per 1000 abortions which compares favourably with reported series from India and abroad. The common sites of perforations, the instruments used, the procedure employed and the management are discussed.

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