

2,420 O.P.D. VACUUM ASPIRATIONS WITH A NEW SUCTION CURETTE

by

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Introduction

Vacuum Aspiration has become the standard procedure for termination of pregnancy in the first trimester on an O.P.D. basis. For Vacuum aspiration, a large variety of suction curettes, plastic and metal, rigid and flexible have been used. This paper analyses 2420 Vacuum aspirations done on an outpatient basis, using a new suction curette devised by the first author, at the Family Planning Hospital, Bombay for one year period from 1st July 1972 to 30th June 1973.

Description of the New Suction Curette. (See Figs. 1 and 2)

These are a set of 4 metal suction curettes of sizes 6 mm. (for 6 weeks), 8 mm. (for 8 weeks), 10 mm (for 10 weeks) and 12 mm. (for 12 weeks). Each suction curette has one round terminal and 2 oval subterminal openings at the uterine end. The subterminal openings are so placed that the distal border of the anterior opening overlaps the proximal border of the posterior opening, thus the posterior opening is further away from the uterine end. The distal border of subterminal openings is slightly sharp. The distal end of the suction curette has an

universal mount. Proximal to the universal mount on the anterior surface of the suction curette is a thumb rest with an airhole. A concertina-like P.V.C. tubing (3/8" diameter) connects the universal mount on the suction curette to a similar mount on a large metal tube in the rubber cork of a glass receptacle. Another smaller metal tube, passing through the India rubber cork of the glass receptacle, is connected to electrical suction machine or a hand-pump or to a foot-pump.

Anaesthesia

No premedication is given. Majority (80%) of the patients need NO anaesthesia—local, general or any other. However, local paracervical block with 10 ml. of 1% lignocaine at 3, 5, 7 and 9 O'clock positions is given to primigravidae, pregnancies of 12 weeks, apprehensive patients and to cases where the cervix is fibrous and difficult to dilate. Lewis *et al*, (1971) report that no anaesthesia was given in 27% of their patients.

Special Points in the Technique

The cervix well exposed by a modified Martin's bivalve speculum, is caught with 2 long Allis forceps. It is then dilated with specially modified Hegar dilators to the size of suction curette to be used.

The suction curette is assembled. It may be preferable to cover the P.V.C. tubing attached to the suction curette with a sterilised short sleeve of cloth so

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Received for publication on 1-7-1974.

as to maintain sterility. The suction curette, with vacuum off, is passed into the uterus till the fundus is reached and then withdrawn a little. The airhole is closed and suction machine or hand-pump started to create a negative pressure of atleast 600 to 650 mms. of Hg. (i.e. 0.75 — 0.8 Kg./Cm²). The suction curette is gently moved up and down in the uterus and the products can be seen in the P.V.C. tubing also. If the thumb is momentarily lifted off the air hole, the rush of air will help propel the products rapidly to the glass receptacle. As the uterus empties the suction curette will appear to be grasped by the uterus. Then reduce the negative pressure to 250 to 300 mm. of Hg. and move the suction curette once round the uterine cavity when a fine grating sensation will be felt all round indicating that the uterus is empty. Sharp curette, if desired, may be passed to check. However, it is not used as a routine.

Advantages of New Suction Curette

(1) The three large strategically placed openings help to empty the uterus rapidly and completely, thus reducing the operation time (5 minutes), the blood loss (25 ml.) and incidence of post-abortal sepsis (0.16%) and repeat curettage (0.68%). (2) The apparatus is simple with minimum number of joints thus reducing leaks in vacuum created. (3) As they are of metal, they can be used for a long time and thoroughly sterilised. They can be easily introduced and do not wobble during suction curettage as with malleable plastic suction curettes.

I. *O.P.D. Cases*: All the cases for Vacuum aspiration were done on an O.P.D. basis. Out of these O.P.D. Cases, only 0.66% needed hospitalisation for observation. Potts and Branch, (1971)

state that complications occur on the operation table or 3 to 7 days later.

TABLE I
Analysis of 2,420 Vacuum Aspiration

O.P.D. Cases—Needing hospitalisation	0.66%
Marital Status—Single and Widows	4%
2 or more living children	70.9%
No living children	7.4%
Education — High School and university	40.9%
Income over Rs. 300	35.4%
Indication for abortion	
(A) Failure of contraception	64.6%
(B) Socio-economic reasons	31.1%
	95.7%

II. *Marital Status*: Only 4% were single, divorced or widows, in contrast to 70% reported by Tietze, (1971) and 48% by Lewis *et al*, (1971).

III. *Living Children*: 70.9% had 2 or more living children. Only 7.4% had no living children in contrast to 51.5% reported by Tietze (1971) and 41% by Lewis *et al*, (1971).

IV. *Socio-economic Status*: Almost 40% of the women had reasonable education and belonged to the middle class.

V. *Indication for Abortion*: Failure of contraception (64.6%) and Socio-economic reasons (31.1%) accounts for 95.7% of all cases.

TABLE II
Complications in 1,900 Cases of Vacuum Aspiration With or Without I.U.D. from 1-8-72 to 30-6-73

(1) Perforation of uterus	0.26%
(2) Cervical lacerations	0.89%
(3) Blood loss over 100 c.c.	0.68%
(4) Infection	0.16%
(5) Bleeding P.V.	1.62%
(6) Bleeding — P.V. needing Re D & E	0.68%
	2.3%

Out of 1,900 cases of Vacuum aspiration with or without I.U.D. done between 1-8-72 to 30-6-73 on which a good follow-up (94%) and more complete data was available, 82 had complications giving an incidence of 4.3%. This compares favourably with complication rate reported by Tietze, (1971) as 4.9%, Nathanson, (1971) as 2.2% and Strauz and Schulman, (1971) as 13.5%.

Perforation of the uterus occurred in 0.26%, all of whom were treated conservatively. Minor cervical lacerations were encountered in 0.89%. Blood loss over 100 cc. was noted in 0.68%. Postoperatively, 0.16% had infection and 2.3% had bleeding per vaginam out of which 0.68% needed a repeat vacuum aspiration.

Abortion is a powerful family planning measure as not only it reduces one unwanted birth but also triggers acceptance of family planning as seen from the accompanying Table. 99.5% accepted some method of family planning.

Conclusion

Our experience conclusively demonstrates that O.P.D. Vacuum aspiration is safest (low major complication rate of 0.26% perforations) and surest way of terminating a pregnancy in the first trimester for our women and under existing facilities. The new suction curettes rapidly and completely empty the uterus, thus reducing blood loss (average 25 ml.), operation time (average 5 minutes) the incidence of repeat vacuum aspiration (0.68%) and the incidence of infection (0.16%). Abortion should be an integral part of the family planning programme. This will encourage the right approach to family planning (99.5% acceptance) and also greatly reduce the repeat abortions which have been the bug-bear of the West. Thus, it will not overburden our already strained health services.

Summary

An analysis of 2,420 O.P.D. Vacuum

TABLE III
Acceptance of Family Planning—(2828 Cases)

Metrod of Family Planning	No. of cases	Percentage
(1) Tubal Sterilisation	928	33%
(2) Vasectomy	147	5.2%
(3) Intrauterine Device	1,607	56.7%
(4) Oral contraception	74	2.6%
(5) Nirodh	56	2%
(6) None	16	0.5%

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aspirations done with a new set of suction curettes is presented.

Only 0.66% needed hospitalisation for observation.

The safety of procedure is reflected in the low complication rate of 4.3%. 99.5%

of women accepted family planning.

References

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Year	Number of women	Number of abortions	Number of complications
1970	200	150	10
1971	250	180	12
1972	300	220	15
1973	350	260	18
1974	400	300	20
1975	450	340	22
1976	500	380	25
1977	550	420	28
1978	600	460	30
1979	650	500	32
1980	700	540	35