Aspiration Curettage and its Outpatient Usage

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SUMMARY

Aspiration curettage is compared with conventional curettage in terms of the quantity and quality of endometrium obtained. It was found to provide representative samples of endometrium free of histological distortion and its use on a number of outpatients without anaesthesia is discussed.

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In order to complete the investigation and diagnosis of many gynaecological disorders it is necessary to obtain samples of endometrial tissue. The obtaining of representative samples, free of mechanical distortion and causing minimal inconvenience or trauma to the patient, has been a challenge for many years. A number of instruments have been designed to minimise trauma to the cervix and to obviate the need for anaesthesia, Sharman's curette being the best-known example. Modifications of the biopsy curette were developed,[1,2] the endometrium was abraded by polyvinyl sponges[3] and the vaginal pool was aspirated to obtain cells of endometrial origin. Criticism of these methods was based on the fact that they only collected surface samples of endometrium and that the total area of endometrium was not sampled.

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The Vabra aspiration curette, designed by Jensen and Jensen,[4] has been subjected to a number of extensive trials[5-8] and would seem to have overcome the criticisms of the previous methods mentioned.

In this trial simultaneous comparison was made between the quantity and quality of the endometrial samples obtained with the aspirator and with a conventional curette.

MATERIALS AND METHODS

The Vabra aspirator (Fig. 1) consists of a stainless steel cannula, 24 cm in length, 3 mm in external diameter and slightly curved at its distal end. There is a cut-out opening (16 mm × 1,5 mm) situated 2 mm from the distal end, and proximally there are two pressure-equalising holes. The cannula is positioned eccentrically on the lid of the plastic aspiration chamber and suction is applied centrally at the base of the chamber, a cylindrical filter within the chamber allowing the passage of blood and mucus down the suction tubing, but retaining endometrial tissue. A sealing cap is supplied to cover the suction outlet and a plastic lid enables the suction chamber to be used as the specimen container.

Suction is supplied from the Vab I pump (Fig. 2), a reciprocating pump with a foot-switch and pressure gauge, capable of producing a negative pressure of 600 mmHg.

Initially, patients admitted for examination under anaesthesia, dilatation and curettage were studied. The patients were submitted to general anaesthesia, placed in the lithotomy position and a pelvic examination was performed. The anterior lip of the cervix was then grasped with a

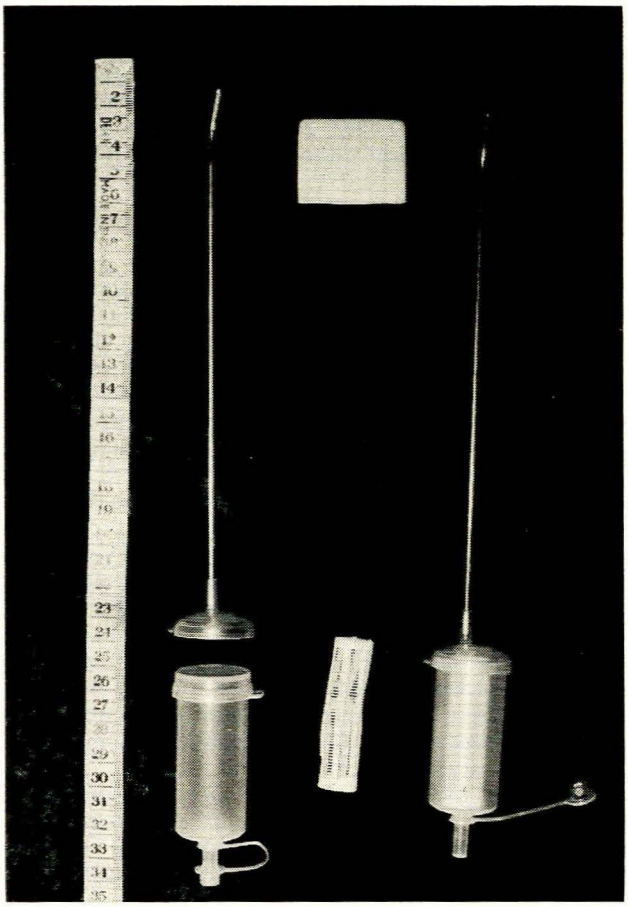

Fig. 1. The Vabra-aspirator.

vulsellum forceps and the aspirator passed through the cervix. Since the diameter (3 mm) of the aspirator is less than that of a uterine sound, the uterus was not initially sounded and no dilatation of the cervix was required. With the aspirator in position, suction was applied and the pressure-equalising holes on the aspirator occluded digitally. The aspirator was then drawn up and down the uterine cavity while it was rotated through 360 degrees. Following the procedure, conventional dilatation of the cervix and curettage of the endometrial cavity were performed. The total quantity of tissue obtained by the two methods was sent in separate containers, differently labelled, for weighing and histological assessment.

Subsequently the aspirator was used in the outpatient department as the sole means of obtaining endometrial samples. After consultation and examination, the patients were placed in the lithotomy position and a Cusco's speculum inserted. The vagina was cleaned with a centrimide solution and dried. The anterior lip of the cervix was grasped with a single-tooth vulsellum forceps (tenaculum) and curettage of the cavity with the aspirator was performed as described above. No sedation or local anaesthesia was used, and after a short period of rest, the patients were allowed to go home.

RESULTS

Thirty-two patients (mean age 34 years) were initially studied by simultaneous aspiration and conventional curettage. It should be emphasised that in each case aspiration was performed prior to dilatation of the cervix for curettage.

In this group 27 specimens (mean mass 0,89 g; range 0,09 - 2,25 g) were obtained with the aspirator, one of

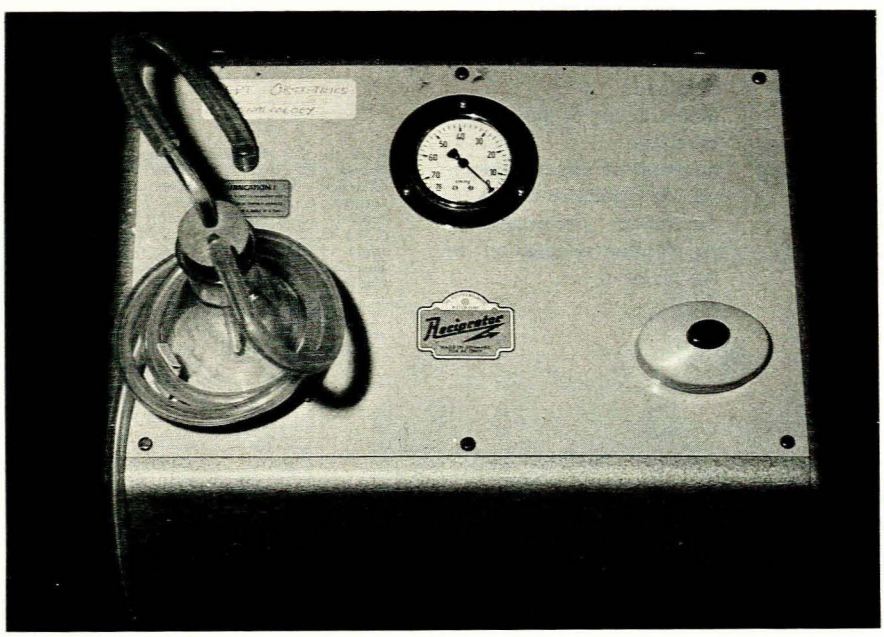

Fig. 2. The Vab I pump.

which was unsuitable for histological assessment. One patient, from whom 15 g of anaplastic tumour and the contents of a pyometra were aspirated, is excluded.

In 5 patients no specimen was obtained with the aspirator. Three of these patients had pathological conditions of the cervix which precluded identification of the cervical canal and the remaining 2 had had amenorrhoea for periods exceeding 6 months, and although the cannula entered the uterine cavity, no endometrium was obtained. Dilatation and curettage could not be performed on the first 3 patients and curettage on the remaining 2 also failed to obtain any endometrial tissue. In 1 patient, with retained products of conception, the aspirator collected a small sample of tissue which was unsuitable for histological diagnosis.

From the subsequent curettage 20 specimens (mean mass 0,43 g; range 0,01 - 1,65 g) were obtained. One case from whom 55 g of products of conception were collected is excluded. Apart from the 5 patients from whom no specimen could be aspirated, a further 6, after aspiration curettage, did not appear to have any endometrium obtainable by conventional curettage.

In each case the mass of the aspirator specimen was greater than that of the curette specimen (in some cases markedly so), but it should again be emphasised that in each case aspiration was performed first.

In every case where comparison of the histological specimens obtained by the two methods was made, the aspirator specimens showed no sign of distortion and allowed assessment of endometrial phasing and of pathology.

Thirty specimens were obtained by means of the aspirator from patients (mean age 31 years) in the outpatient department. Four of these were unsuitable for diagnostic purposes and details of these are listed in Table I. The mean mass of the specimens obtained (0,97 g) compared favourably with the mean mass of the specimens taken with the aspirator under general anaesthesia (0,89 g). Satisfactory histological diagnosis was made in each case.

TABLE I. FOUR UNSATISFACTORY SPECIMENS OBTAINED WITH THE ASPIRATOR

Age	Indication	Comment
72	Postmenopausal bleeding	Fragment of endocervix obtained
37	Menorrhagia	Menstruating at the time of curettage
62	Postmenopausal bleeding	Endometrial stroma obtained, no glandular tissue
24	Hydatidiform mole	Aspiration performed 6 days after evacuation of the mole.

DISCUSSION

In view of the fact that the reliability of the aspirator has been established in direct comparison with conventional methods of dilatation and curettage, both in terms of quality and quantity of endometrial tissue obtained, it was decided to use the aspirator as the sole means of obtaining endometrial tissue for diagnostic purposes.

The results were very favourable, and samples were obtained with very little inconvenience to the patient. All the procedures were performed by one of us (D. B.) and familiarity with the instrument enabled larger amounts of tissue to be obtained more rapidly. This was of particular importance in the outpatient department where manipulation is best kept to a minimum. Of the 30 outpatients, 18 complained of vague pelvic pain during the procedure and 7 experienced no discomfort whatsoever. Five patients experienced severe pain, but only 2 stated, on direct questioning, that they would not wish to have the procedure repeated without general anaesthesia. Both these patients were nulliparous.

Owing to the small diameter of the cannula, the instrument is unsuitable for use in cases where it is thought that there are recent or old products of conception in the uterus. Although very convenient, the outpatient use of the apparatus is contra-indicated in cases where a thorough examination under anaesthesia or therapeutic dilatation of the cervix (if thought to be of value) is required. It is recommended that before the instrument is used on conscious patients, experience in the technique should be gained on patients under general anaesthesia.

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