Diagnostic Vacuum Curettage

CURETTAGE WITHOUT ANAESTHESIA IN 136 OUTPATIENTS

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SUMMARY

A trial of the Vabra aspirator, a sterile disposable suction curette, was carried out on 136 outpatients. The apparatus is designed to allow full curettage of the uterine cavity. Adequate specimens for diagnostic histology were obtained in all but 10 cases. Of these, no specimen was obtained in 4 cases. The side-effects were minimal.

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The Vabra aspirator was designed in Denmark for use as a diagnostic and therapeutic aid on an outpatient basis.[1] The purpose of our trial was to establish the suitability of the specimens obtained for histological examination, to evaluate the side-effects, and to screen the population examined for tuberculosis of the endometrium. The saving in both time and cost to the patient is significant, compared with conventional curettage under anaesthesia.

Patient follow-up was poor, and except for 5 pregnancies which occurred after aspiration, there is little to comment on the therapeutic value of the procedure.

PATIENTS AND METHODS

The cannula of the Vabra aspirator is of stainless steel, 24 cm in length and 3 mm in external diameter. The end of the cannula is slightly curved, with a 1,5-mm slit on the concave side. Proximally, there is a hole for equalising the pressure. The aspiration chamber is made of plastic with a filter of fine mesh to prevent the endometrium from being carried away. The vacuum is applied to the bottom of the chamber via a flexible tube connected to a suction pump capable of producing a negative pressure of 500 - 600 mmHg within 3 seconds, and is operated by a foot-switch. The apparatus is presterilised and prepacked.

The patients in the trial were drawn from those attending the Outpatient Clinic at Edendale Hospital. The hospital serves a mainly rural population with many of the patients coming from afar and thus our follow-up was inadequate. The criterion for selection was that curettage was indicated. No premedication was given.

Three patients were excluded from the survey. The first was a nulliparous teenager in whom a uterine sound could not be passed. The second patient complained of excessive pain upon introduction of the cannula and was admitted for conventional curettage. The third patient had had a sympathetic reaction with sweating and vomiting and the procedure was abandoned.

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Age Distribution

Table I shows the age distribution of the patients included in the survey.

TABLE I. AGE DISTRIBUTION

Age	No. of patients
<20	12
20 - 30	68
31 - 40	48
41 - 50	6
>50	2
	136

Of the patients 40 were nulliparous and the remaining 96 had borne one or more children.

Indications for Curettage

The indications for vacuum curettage are summarised in Table II. As can be seen, the majority fell into the abnormal uterine bleeding or infertility groups.

TABLE II. INDICATIONS FOR CURETTAGE

	No. of patients
Abnormal uterine bleeding	69
Infertility—primary	23
—secondary	17
Secondary amenorrhoea	19
Pelvic inflammatory disease—acute	3
—chronic	2
TB endometritis	3
	136

Technique

The patient is placed in the lithotomy position and a bivalve speculum is passed. A uterine sound is introduced to measure the length and also to assess the direction of

the uterine cavity. The aspiration cannula is inserted into the cervix as far as the fundus and the pressure-equalising hole is occluded with the index finger. The vacuum is then switched on. The cannula is passed up and down the uterine cavity, rotating it simultaneously through 360° with the slit facing outwards. Once or twice the cannula is withdrawn completely, so that air can be sucked in to carry mucosal fragments into the plastic chamber, and then reinserted. The entire procedure takes 15 - 30 seconds.

The mucosal specimen is removed from the aspiration chamber and placed in a formalin solution for histological study. The remainder of the aspirate is added to a Kirschner culture medium and transported to the laboratory to culture for the presence of acid-fast bacilli.

RESULTS

Suitable histological specimens were obtained in 126 patients. In 4 patients no specimen was obtained; 2 were menopausal, 1 had secondary amenorrhoea after taking Provera and 1 presented with primary infertility. Six patients' specimens consisted of scanty traumatised fragments of endometrium and blood clot and were unsuitable for histology. Of these, 2 were menopausal, 1 had secondary amenorrhoea, 1 presented with primary infertility and 1 with secondary infertility. The last-mentioned fell pregnant 2 months after the procedure.

The histological findings, apart from normal endometrium, included non-specific endometritis, products of conception, decidual tissue, cystic glandular hyperplasia and focal adenomatous hyperplasia. In 2 specimens a diagnosis of anovulatory cycles could be made. There was no evidence of malignancy in any of the specimens which were suitable for histological examination. Of all the specimens sent for culture of acid-fast bacilli, 2 yielded a positive result.

Complications

Only immediate complications were noted. These are summarised in Table III.

TABLE III. COMPLICATIONS

Failure to introduce cannula	1
Failure to obtain a specimen	4
Unsuitable specimen	6
Excessive pain	5
Sympathetic reaction	1
Bleeding	0
Perforation	1

In only one patient was the pain severe enough to warrant termination of the procedure. There was only one uterine perforation recorded in the series. The patient was admitted and needed conservative management only. No excessive bleeding was noted after curettage in any of the patients.

DISCUSSION

Jensen,[2] in a series of 350 cases, showed that the histological specimen obtained by suction aspiration was comparable to conventional curettage for diagnostic as well as therapeutic purposes on an outpatient basis. Holt,[3] in a series of 60 cases, found that the procedure was acceptable to patients, produced satisfactory specimens for histology and had minimal side-effects.

This series confirms the above findings. In addition the procedure was a useful aid in screening the women examined for tuberculosis of the endometrium.

From a therapeutic point of view Jensen[2] found that in 80% of patients undergoing vacuum curettage the uterine bleeding was normalised. Of those patients who did return for follow-up in our series, 5 pregnancies have been confirmed. Of these, 3 had presented with secondary infertility and 1 with menorrhagia. In the infertility group the pregnancy rate was 10%. In the menopausal patient in whom curettage is indicated, admission to hospital for conventional curettage is advocated.

REFERENCES

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2. Jensen, J. G. (1970): Dan. Med. Bull., **17**, 199.
3. Holt, E. M. (1970): J. Obstet. Gynaec. Brit. Cwlth, **77**, 1043.