minimally impaired. No correlation was found between post-operative encephalopathy and a preoperative history of hepatocellular jaundice or ascites. Though there may be no preoperative encephalopathy, jaundice, ascites, or hypoalbuminaemia encephalopathy may still develop, and the frequency in these cases was similar to that of the whole series. There is a need for an accurate method of predicting preoperatively those likely to develop encephalopathy after shunting. Read *et al.*¹⁸ suggested that frequency analysis of the E.E.G. may be the method of choice in this regard, and, in addition, may detect subclinical encephalopathy postoperatively when appropriate therapy can prevent clinical deterioration and possibly delay permanent brain damage.

End-to-side portacaval shunt is less effective than the side-to-side procedure in relieving a hepatic venous outflow block,¹⁹ and leaking hepatic lymph will remain a potential source of ascitic fluid; nevertheless, postoperative ascites was not a serious problem in survivors, partly due to selection of cases, since persistent or gross ascites excluded patients from surgery.

Though a true increase in the incidence of peptic ulceration after shunt operations has not yet been conclusively shown in a controlled trial 8% of survivors with a patent shunt developed a chronic peptic ulcer, an incidence similar to the 8.9% quoted by Grace *et al.*¹¹ Aggravation of existing chronic duodenal ulcers was not seen after the operation.

Results in the present series are consistent with the view that the candidate for elective end-to-side portacaval shunt should be young (preferably below 40 years of age) and should not have had hepatocellular jaundice or portal-systemic encephalopathy even after bleeding. If the underlying cause of the portal hypertension is non-cirrhotic or biliary in origin this is an added advantage. The presence of preoperative transient mild or moderate ascites does not seem adversely to influence the outcome. Patients with active chronic hepatitis seem to do

poorly after portacaval shunt. In alcoholic liver disease abstinence from ethanol lessens the chance of encephalopathy after a shunt operation. Diabetics frequently suffer disabling encephalopathy postoperatively. A patent shunt is more likely if the portal vein is not calcified or thrombosed and may be more likely if the portal vein diameter, as measured on venography, is greater than 1.5 cm.

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Results in 1,000 Cases of Therapeutic Abortion Managed by Vacuum Aspiration

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Summary

A prospective study of 1,000 cases of termination of pregnancy by vacuum aspiration is presented and the safety of the method emphasized. By setting up special clinics and an additional weekly operating session, the maximum delay from a request to appointment is 5 days, and, if operation is advised, from appointment to operation a further 7 days.

Introduction

We have previously reported on the use of vacuum aspiration in therapeutic abortion¹ and present now the results from a consecutive series of 1,000 cases so managed. Since our previous

report much interest has been aroused in the use of intravenous prostaglandin E₂,^{2,3} intrauterine prostaglandins E₂ and F_{2α},⁴ and prostaglandins E₂ and F_{2α} in the form of vaginal tablets⁵ for therapeutic abortion. Clinical trials of these substances are currently limited to some four centres in the United Kingdom, and while the outcome of the work is awaited with interest most gynaecologists will for the present have to rely on conventional methods—namely, curettage, vacuum aspiration, and, for more advanced cases, intra-amniotic saline, intrauterine paste, or, more rarely, hysterotomy.

The technique in current use differs slightly from that which we previously described. General anaesthesia has in most cases been replaced by a regimen whereby after premedication with Omnopon 10 mg and scopolamine 0.2 mg the patient is treated in the operating theatre with intravenous diazepam 10 mg, intravenous pentazocine 30 mg, and methohexitone sodium 100 mg together with 0.5 mg of ergometrine. If the patient is disturbed by the operation further methohexitone may be given, though none has been necessary to date. In 20 cases where the pregnancy had not advanced beyond eight weeks by dates we used the Rocket vacuum aspiration catheter* (6 mm diameter) under intramuscular diazepam 10 mg and intravenous

*Obtainable from Rocket of London, Ltd., Imperial Way, Watford, Herts.

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ergometrine 0.5 mg, the patients being discharged from hospital four to six hours later.

Both techniques have been associated with a lessened blood loss and smoother postoperative course.

Present Series

Only patients in whom vaginal termination was contemplated have been included in the series. During the period under review there were 186 other patients in whom pregnancy was terminated, 108 by abdominal hysterotomy and 78 by intra-amniotic hypertonic saline. The indications for all cases managed by vacuum aspiration, which included 48 aspirated for indications other than termination of pregnancy, are listed in Table 1.

TABLE 1—Indications for Vacuum Aspiration

	No. of Cases
Therapeutic termination of pregnancy	1,000
Incomplete abortion	44
Hydatidiform mole	2
Missed abortion	2

We have again not followed the headings set down in the statutory notification forms but have preferred our own headings. Table II shows that most of the 1,000 patients fell under the social and psychiatric-social headings. In the former group we

TABLE II—Indications for Therapeutic Abortion

Indication	No.	Indication	No.
Obstetric	10	Psychiatric	85
Medical	21	Psychiatric-social	297
"At risk" fetus	14	Social	573

placed patients in whom only social factors were operative; in the latter group we included patients in whom there had been, in addition to social factors, minor psychiatric problems in the past or in whom these were present at the time of interview. These were judged by the family doctor or ourselves to be pertinent to the question of termination of pregnancy but did not warrant psychiatric reference.

Figures for age and marital status (Table III) showed no change from those previously reported by us.

TABLE III—Age and Marital Status of Patients

	Age in Years								Total
	<15	15-19	20-24	25-29	30-34	35-39	40-44	≥45	
Single	16	200	186	40	17	10	2	1	472
Married		11	70	110	125	94	37	3	450
Divorced, separated, or widowed		2	14	30	11	12	8	1	78
Total	16	213	270	180	153	116	47	5	1,000

Blood loss in relation to gravidity and gestation period is shown in Table IV, and it is noticeable that this was not excessive in most patients. More recently with the increasing number of patients managed at an earlier stage of pregnancy (see below) there has been correspondingly lessened blood loss.

TABLE IV—Blood Loss in relation to Period of Gestation

Gestation Period in Weeks	Blood Loss (ml)											
	<100		100-200		200-300		300-400		400-500		>500	
	P.	M.	P.	M.	P.	M.	P.	M.	P.	M.	P.	M.
4-6	3	1										
6-8	133	99	20	20	3	10	3	1	2			
8-10	50	92	58	79	20	28	12	9	3	7	3	5
10-12	13	38	19	38	15	33	8	19	9	28	9	11
12-14	1	11	6	9	6	8	3	6	3	9	10	13
14+				1		2		1			2	8
Total	441		250		125		62		61		61	

P. = Primigravid. M. = Multigravid.

The duration of hospital stay is shown in Table V and the reasons for a stay in excess of three days are listed. We discharged most of the patients within 24 hours of operation. There was a low incidence of complications in this group, particularly in respect of prolonged or excessive bleeding requiring repeat curettage. Only six patients discharged within 24 hours of operation needed readmission.

TABLE V—Duration of Hospital Stay

	No. of Patients
24 hours or less	745
24-48 hours	158
48-72 hours	36
Over 3 days	61*

*Deep vein thrombosis 1, repeat curettage 11, pelvic sepsis 7, sterilization 40, upper respiratory tract infection 2.

Complications are listed in Table VI. Five cases of uterine perforation occurred but are not included in the main series as they were, with one exception, managed by suture of the perforation and hysterotomy. The remaining patient, a 5-para

TABLE VI—Complications Encountered

	No. of Patients
Uterine perforation	5*
Postoperative pyrexia	12
Superficial venous thrombosis	2
Deep vein thrombosis	1
Repeat curettage	13
Haemorrhage in excess of 500 ml	61
Blood replacement	16
Dextran 70	19
Saline	36

*These cases are not included in the series as they were managed by suture of the perforation and hysterotomy.

aged 35 years, was managed by abdominal hysterectomy. The sepsis rate remained low and few cases required repeat curettage. Haemorrhage above 500 ml occurred in 6% of patients.

Comment

Further experience with vacuum aspiration for the purpose of therapeutic abortion confirms our original comments on the value and safety of the technique. There have been few large individual series reported from Western Europe, but Kerslake and Casey⁶ and Nilsson⁷ reported low infection rates and a short inpatient stay. Uterine perforation was not recorded in the quoted papers. Three of the five cases of perforation in our series were caused by relatively inexperienced personnel carrying out the operation, and the danger must be borne in mind on all occasions, the procedure being carried out with care.

We have noted over the months since the advent of the Abortion Act that reference of patients is becoming more common for less well defined—that is, social—reasons. Certainly the attitudes of the press and television now bear little resemblance to attitudes of a few years ago, and it is hardly surprising that patients are now more vociferous as a result of the change in climate of opinion. Consequently greater pressures may well be brought to bear on family doctors who, reasonably, will refer the patients to gynaecologists. Because of this increasing work load it was felt expedient to channel termination requests into special clinics. Two such abortion clinics operate here each week combined with an additional weekly operating session, and we hope in due course to report on the workings of these clinics.

For the present the delay from an appointment being requested to the patient being seen is at most five days, and the maximum waiting time to operation (provided that vaginal termination is indicated and feasible) a further seven days. As a result increasing numbers of patients are seen at an early stage of pregnancy and are dealt with by vacuum aspiration using either the anaesthetic technique described or the Rocket vacuum aspiration catheter under premedication alone. We in

this hospital group have experienced extreme pressure on our outpatient and operating time, and we assume that other areas are experiencing the same pressure. The techniques outlined should help to minimize the dislocation of normal clinics and operating sessions which this additional work brings in its train.

We would like to thank the theatre and nursing staff for their help in ensuring the rapid turnover in admission of day patients.

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Colleagues in Health Care

The Health Visitor

FROM A SPECIAL CORRESPONDENT

British Medical Journal, 1971, 4, 479-480

It was the misery and squalor among the poor of the industrial north that prompted the formation in 1862 of the Ladies' Sanitary Reform Association in Manchester. Its aim was to "popularize sanitary knowledge, and to elevate the people physically, socially, morally and religiously," and to this end they appointed "a respectable working woman" to do systematic home visiting and to give help. This was the precursor of the modern health visitor.

There are two ways in which a woman may become a health visitor. A small but increasing number take a degree course which qualifies them as nurses and health visitors, and as university graduates. The majority are State-registered nurses, who must have either a full or Part 1 qualification as a midwife, or have taken an approved three months' obstetric course. She must have at least 5 O-level subjects (including English, Welsh, or history) or be approved on other educational grounds. She then spends a year of theory and field-work at one of the many colleges which offer such a course, and this leads to a certificate. Training, examinations, and recruitment are controlled by the Council for the Training of Health Visitors.¹ The council has national responsibilities, the interest of Scotland and Northern Ireland being safeguarded by advisory committees. Local education authorities may make training grants, or health authorities may sponsor a student, paying threequarters of the minimum health visitor's salary during training, and in return may require a contract of service. The salary today is £1,350 to £1,734.

The health visitor is by definition a woman, though some men are working as health visiting officers, notably in Scotland. Male nurses cannot obtain the necessary obstetric training, and it is a source of irritation to them that they cannot receive even the amount of instruction in this subject currently given to policemen and ambulance men. The council favours the inclusion of men, and means are being sought for allowing eligibility.

Definition of Work

The council defines the work of the health visitor as being firstly, the prevention of mental, physical, and emotional ill health, or the alleviation of its consequences; secondly, early detection of ill health and the surveillance of high risk groups;

thirdly, recognition and identification of need and mobilization of appropriate resources; fourthly, health teaching; and, lastly, provision of care and support in periods of stress. The nature of the work varies enormously over the country. The Greater London Council has published a report² on the work of its health visitors, which is an admirable piece of research on the way they spend their time and the range of work they undertake. Parts of the central boroughs are areas of dense population, severe housing problems, high illegitimacy rates, social nonconformity, and drug-taking. Here the health visitors mostly go on foot about their congested domains, and two-thirds of them have less than six years' experience. In the outer boroughs, on the other hand, a quarter of them have had more than sixteen years' experience. These tend to be married women who have moved to the suburbs, where the population is less mobile and the problems presented less intractable than those of central London.

General practitioners understand well the role of the district nurse, who works at clinical tasks which they can value. Health visitors feel that their work and skills are not fully valued by many doctors, who see her not in uniform, never rolling up her sleeves, and only too often regard her as a nurse who has given up nursing.³ A better knowledge of the skills she has to offer would be of mutual benefit, and some doctors might be interested in a film⁴ the council has made.

The increasing number of health visitors who are wholly or partly practice-attached has widened understanding, and the considerable literature⁵ on the subject indicates that most doctors and health visitors prefer such an attachment. But this cannot be successfully made without careful preparation,⁶ and problems which, in the present restructuring phase of the health and social services are hardly formulated, may soon become apparent. A practice with six partners might need four attached health visitors, besides registered nurses working in the surgery and in the home, and possibly enrolled nurses and aides. Who is to head this team? The doctor cannot do this, any more than his counterpart in a hospital can direct detailed nursing activities as the ward sister does. Another point likely to become relevant is that many health visitors, who spend much time in listening and counselling, receive from women confessions and confidences they have never divulged to their nearest and dearest and which the health visitor would not commit to writing in her records. What are her responsibilities to the client who expects secrecy,