

they suffered slightly greater risk of needing additional curettage because of incomplete emptying of the uterus after SM. Other authors report similar results (Lakomy 1968, Sternadel *et al.* 1968). Figures concerning colpitis and cervicitis are not available, but our impression is that they are quite frequent after both techniques. The incidence of delayed complications is not known.

Half the patients were between 26 and 35 years, 22% over 35 and 28% under 25. Seventy per cent of the patients in the age group under 20 were younger than 18 and half of them under 15 years. Antonovski *et al.* (1968) have found quite similar figures analysing all abortions performed in Macedonia. Fifty-four per cent of all patients had fewer than three children, 30% had three or more and 16% were para 0. Eighty-four per cent were married and 16% unmarried, divorced or widows.

Comments and Conclusions

In our experience, SM was the technique of choice for termination of pregnancy up to fourteen weeks' duration because of a lower incidence of traumatic injuries to the internal cervical os, endometrium and myometrium. In addition, it is a quicker procedure than CT and associated with considerably less blood loss, especially in pregnancies of over eight weeks' duration. The technique used was described by Kjurciev *et al.* (1966). SI was the method of choice for termination of an advanced pregnancy, though other authors have found considerably higher incidence of post-operative complications and deaths following it (Fushs 1967). In all patients undergoing abortion, all routine precautions were taken.

The very high number of artificial abortions performed is the result of the passing of the Abortion Act. In our opinion, it is both a serious blemish on and a challenge to the contraceptive service. The decrease in the number of septic abortions with their very high mortality rate offers one of the very rare professional satisfactions for us in return for so many legal abortions performed.

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Abortion in Czechoslovakia

In January 1958 termination of pregnancy became legal not only on medical grounds but also in cases 'deserving special consideration'. In 1957, before liberalization of the law, there were 28,000 spontaneous and criminal abortions with 21 deaths, and 8,000 legal abortions with 8 deaths. During the nine-year period 1958 to 1966 there have been 242,016 spontaneous and criminal abortions with 103 deaths, and 731,507 legal abortions with 17 deaths.

Since 1962 termination of pregnancy has not been permitted after the twelfth week unless a real medical indication exists because the percentage of legal abortions complicated by post-abortal sepsis was found to be approximately 2.5 before the eighth week with a steady increase with the duration of gestation to 20% at the sixteenth week.

In 1966 there were 90,263 legal abortions, the commonest reason being because the woman had at least three living children. Sixty-two per cent were before the eighth week and less than one per cent after the twelfth. Fifty-five per cent were in women who had had no previous abortion.

All legal abortions take place in hospital in properly equipped operating theatres and the surgeon has at least '1st degree specialization in obstetrics and gynaecology'. Patients are admitted the evening before operation for assessment, and pelvic sepsis is regarded as an absolute contraindication. The usual anaesthetic used is thiopentone sodium and oxygen. Before the fourteenth week dilatation and curettage is usual, and vaginal hysterotomy for more advanced gestations. Vacuum aspiration is becoming increasingly popular. Initially this procedure was frequently associated with complications arising from incomplete emptying of the uterus but these are rare in pregnancies of not more than eight weeks; for these early abortions it is only necessary to dilate the cervix to 9 mm and the products of conception disintegrate and do not block the apertures of the cannula.

Patients usually remain in hospital for four days because any rise in temperature usually occurs on the third day.

In 1963 complications within six weeks of abortion occurred in 2.33% and after six weeks in 4.92% of cases. In addition to these national figures Czechoslovakian gynaecologists who have studied the problem consider that if late complications are also included, about 15% are associated with a complication of some sort. They are

parametritis, sterility and isoimmunization of the ABO system. There is said to be an increased incidence of subsequent spontaneous abortion, cervical incompetence, premature labour, complicated labours which require intervention especially because of placenta prævia and retained placenta, and twice the incidence of foetal death during pregnancy and labour. One per cent suffers from menstrual disorders which were not previously present, and occasionally serious disorders occur in gonadotrophin secretion.

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Termination of Pregnancy Using Utus Paste

One hundred and sixteen patients who were twelve or more weeks pregnant were admitted to Saint Mary's Hospitals, Manchester, for termination of pregnancy using utus paste. In 58 patients the paste was inserted under anaesthesia, and in another 58 following premedication only. There was one failure in each group, the success rate of inducing an abortion being therefore 98.3%. An analysis of the remaining 57 cases in the anaesthetic group revealed that 16 (28.1%) aborted completely, and 41 (71.9%) subsequently required evacuation of retained products, but in the unanaesthetized group almost the reverse was true, 38 (66.6%) aborted completely and 19 (33.3%) needed later evacuation.

The reason for the difference is probably the fact that the anaesthetic often used is halothane which relaxes the uterus, and under these circumstances it would appear obvious that utus paste will tend to pool at the site of introduction, whereas with some uterine tone in the unanaesthetized patient the tendency will be for the paste to strip off the membranes at least. In terms of anaesthesia, the first group required 98 anaesthetics (57 for insertion and 41 for evacuation), whereas in the second group only 19 anaesthetics were required for evacuation. This fact alone represents increased safety to the patient and a saving of expense and medical and nursing time.

The average time taken for the patient to abort was 32 hours in the anaesthetized group, and 29½ hours in the unanaesthetized group. However, an oxytocin drip was set up in the theatre before the insertion of paste in some cases in each group, and this shortened the average induction-abortion interval to 29 hours in the anaesthetized group and to 21 hours when no anaesthetic was given. Conversely, when no drip was set up the average

duration was 37½ hours and 33 hours, a time difference of 8½ hours and 12 hours respectively, denoting time saved when a drip was used.

Although the use of an oxytocin drip speeded up the abortion process, it was found that the use of intramuscular ergometrine at the time of passing the foetus was associated with retained products in both groups. The best results were in the unanaesthetized group who were on a drip but were not given routine ergometrine, when 87.5% had a complete abortion and there were no complications, and in the anaesthetized group similarly treated 47.5% aborted completely but there were 4 complications.

There were 22 complications in the series (19.3%), hæmorrhage and/or infection, the incidence being only 5.5% when the abortion was complete, but 31.6% when it was incomplete. There were no deaths. To counteract bleeding the drip can be speeded, and for infection the earlier use of an antibiotic and a precautionary pre-operative investigation of the vaginal flora are suggested.

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Termination of pregnancy by the use of intra-amniotic hypertonic saline has many advantages: general anaesthesia is avoided; there is minimal surgical interference and no scarring of the uterus, little blood loss and low morbidity; and no haste in arriving at decisions or arranging admission of patients. Eighty-four pregnancies between fifteen and twenty weeks have been terminated by me by this technique at Hackney Hospital in the last three years, with only 2 failures: one of these turned out to be a hydatidiform mole. After the 12th week of pregnancy, this is the method of choice and hysterotomy is resorted to only in patients who are to be sterilized.

Contraindications are heart disease, nephritis and pre-eclampsia, and – most important – failure to get a clear tap, free from blood, with 2 attempts. In such a case amniocentesis is either done vaginally or attempted again two weeks later.

Deaths have been recorded principally by Wagatsuma (1965) and Cameron & Dayan (1966). The former's series of 25 deaths in Japan between 1946 and 1952 occurred in a population of unselected patients, many suffering from malnutrition or other systemic disease, operated on by inexperienced operators under poor conditions with no antibiotic or transfusion facilities, and