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EARLY AMBULATION FOLLOWING ABORTION*

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THIS PAPER comprises a study of 200 cases of incomplete and complete abortion in an attempt to justify two premises on which the treatment of such cases is based when admitted to the public ward of the Victoria General Hospital, Halifax. The two premises are: (1) Early ambulation and early discharge from hospital; (2) exploration of the uterus under anæsthesia only when it is felt that definite products of conception remain, or for persistent bleeding, but not as a matter of routine in all cases.

Material.—The case histories of 280 married public ward patients were reviewed and a questionnaire sent to each patient. From this number we obtained 200 follow-ups, the remainder we were unable to trace because of change in address. Septic cases were eliminated as the treatment of these differs from the non-septic in our hospital. We realize it is difficult, in many instances impossible, to distinguish between an infected and a non-infected abortion. A combination, however, of (a) a temperature of 100 degrees or more, (b) a foul discharge vaginally, and (c) tenderness on moving the cervix or when palpating the parametrial areas during vaginal examination places the case in an infected category so far as we are concerned. We have made little use of cervical or uterine cultures as a method of distinguishing between the septic and the non-septic abortion.

We also eliminated the single woman from this study, feeling that any attempt to follow up these cases might prove embarrassing to the individual. Our follow-up questionnaire was prepared with a view to obtaining the following information; a great many of the women were contacted directly as well:

1. When the bloody discharge had cleared up completely.

2. Whether the patient had returned to one of the other hospitals for treatment, or had to be treated by her family physician.

3. When she felt like resuming all of her usual daily activities.

4. Whether she had become pregnant again; and, if not, was this due to some form of birth control.

5. Finally, whether the patient liked the program of early rising and early discharge from hospital.

Treatment.—On admission to hospital each case of incomplete or complete abortion is treated as follows:

(a) Complete physical examination by the intern including blood picture, Kahn, and urinalysis, with cross-matching of blood for transfusion if the Hgb. is below 70%, or if the patient is bleeding excessively.

(b) Examination in the treatment room without anæsthetic and removal of any loose tissue in the vagina or cervix with sterile ovum forceps. We feel that many of these women bleed because tissue is caught up in the cervical canal preventing the uterus from contracting down. We believe the removal of such tissue with ovum forceps is a simple matter, and once it is removed, the bleeding usually stops and to all intents and purposes the case is complete.

(c) Following examination in the treatment room, if it is still felt that the case is incomplete because of some combination of the four factors of (1) bleeding, (2) big uterus, (3) cramps, and (4) failure of the cervix to close, the remaining tissue is removed under anæsthesia with ovum forceps. Occasionally curettement is performed.

(d) Those cases completed in the treatment room without anæsthesia are allowed up, and in many instances discharged from the hospital the same day. Those completed under anæsthesia are discharged the following morning. The patients are allowed up immediately or after recovering from anæsthesia and have complete ambulatory freedom, including bathroom privileges.

(e) Blood transfusions are used liberally. Any patient with a Hgb. of less than 70% receives sufficient blood to bring the Hgb. up to this level.

RESULTS

Table I shows that of the 200 cases reviewed, 41, or 20.5%, were complete upon arrival in the hospital or completed themselves shortly after admission. Sixty-nine, or 34.5%, were completed in the treatment room by removal of tissue from the cervical canal with ovum forceps and without anæsthetic. Ninety, or 45%, underwent operative removal under anæsthesia, 10 of which proved negative for products of conception.

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Ten of the 200 patients under consideration had to return to hospital because of bleeding. Three of these had undergone operative removal of the placenta (or part of it) under anæsthetic at their first admission. In two of these three cases placental tissue was obtained at the second try. Of the remaining seven patients who had to be re-admitted—patients we had felt were complete, or completed in the treatment room without anæsthesia—five showed placental tissue when emptied under anæsthesia.

TABLE I.

TREATMENT OF CASES

	Number	*Percentage of total*
Complete on arrival at hospital	10	5.0
Completed themselves in hospital	31	15.5
Completed in treatment room	69	34.5
Operative removal under anæsthesia	90	45.0
Total	200	100.0

Table II shows that in 189, or 94.5%, of the patients the bloody discharge had disappeared completely within four weeks, and in only 11, or 5.5%, did it persist longer.

TABLE II.

BLOODY DISCHARGE

	Number	*Percentage of total*
Cleared up completely within 4 weeks	189	94.5
Cleared up completely within 5 weeks	2	1.0
Cleared up completely within 6 weeks	7	3.5
Cleared up completely within 8 weeks	2	1.0
Total	200	100.0

Table III reveals that 171, or 85.5%, of the patients were able to do all of their own work in 4 weeks or less, while only 29, or 14.5%, required more than 4 weeks before they felt strong enough to perform all of their usual daily activities.

Sixteen, or 8%, returned to their family doctor for reasons directly connected with the abortion. Of these 16 patients, 2 were treated for a mild pelvic infection, 7 were treated for the bloody discharge, and only 7 had to return to hospital for bleeding. It was stated above that 10 patients returned to hospital but 3 of these did so directly without seeing their own doctor (Table IV).

Regarding future pregnancies, (Table V) 124 of these abortions occurred in 1949-1950 and 76 in 1947-1948, so we feel that sufficient time has not yet elapsed to see if our form of treatment has had any detrimental effects on the fertility

TABLE III.

RETURN TO WORK

	Number	*Percentage of total*
Performed all duties within 1 week	86	43.0
Performed all duties within 2 weeks	31	15.5
Performed all duties within 3 weeks	16	8.0
Performed all duties within 4 weeks	38	19.0
Performed all duties within 4 plus weeks	29	14.5
Total	200	100.0

TABLE IV.

COMPLICATIONS

	Number	*Percentage of total*
Returned to hospital because of bleeding	10	5.0
Treated for pelvic infection	2	1.0
Treated for bloody discharge—medically	7	3.5
	19	9.5

TABLE V.

FERTILITY

	Number		*Percentage of total*
Pregnant again since abortion	84		42.0
Full term delivery	55	65.4	
Pregnant at time of writing	12	14.5	
Aborted again	17	20.1	
Total	84	100.0	
Not pregnant since abortion	116		58.0
Using birth control	55	47.4	
Not using birth control	61	52.6	
	116	100.0	100.0

of these women. 84, or 42%, of the patients have been pregnant since their abortion, and of these 55, or 65.4% have delivered full term babies; 17, or 20.1%, aborted again; and 12, or 14.5% are

pregnant at the time of the writing of this paper. Fifty-five, or 47.4%, of the 116 patients not yet pregnant are using some form of birth control.

TABLE VI.

EARLY AMBULATION AND EARLY DISCHARGE

	Number	*Percentage of total*
In favour of early ambulation and early discharge	144	74.0
Not in favour of early ambulation and early discharge	56	26.0
Total	200	100.0

One hundred forty-four, or 74%, of the patients were definitely in favour of the early rising and early discharge from hospital, whereas 55, or 26%, were against the program (Table VI). The reasons the latter group gave were varied but mainly centred around "weakness". In general this did not appear to be related to blood loss since only 12 of this group, or 21.4%, required blood transfusion.

COMMENT

The Department of Obstetrics and Gynæcology of Dalhousie University has been interested in early ambulation in the puerperal woman for over twenty years, and recently did a survey and a follow-up of about 1,200 public ward women covering the period 1928-1945, to determine if this procedure causes an increase in immediate or late morbidity or disability. The experience with early ambulation in the full term puerpera suggested that the same program might be well worthwhile following a miscarriage. The above survey showed that early ambulation did not increase the tendency to morbidity, and the impression gained was that it actually decreased it.

The great advantage of early ambulation is an economic one. In these days of high hospital costs and the difficulty of obtaining domestic help, it is a great advantage to a young woman in the child bearing age to be able to remain in hospital only a day or two and then to be more or less capable of looking after herself and her family from the day she goes home. All this represents a real saving of money and removes a good deal of the usual expense and inconvenience of having a miscarriage. We also feel this short hospital stay and early return to normal living minimizes the psychological traumata due to the accident, which in some cases is probably more than we generally think. This, also, is a decided gain.

The greatest risk in this program is probably that of hæmorrhage. Each woman on leaving the hospital is instructed to return immediately or to consult her own doctor if there are any signs of hæmorrhage or if bleeding persists for more than two weeks. As noted above, we had to readmit only 10 patients for persistent bleeding, 7 of which were due to retained fragments of placenta. We do not believe early ambulation increases the tendency to infection: on the contrary we believe the improved drainage due to the upright position and the more active contractions of the uterus decrease such a tendency. In our 200 cases there were only two cases with mild pelvic infection, an incidence of 1%.

It is our impression and their own statement that most women prefer this type of regimen, and that they feel better at the end of a week than after the traditional period of rest in bed.

We know that some women will leave hospital under this policy with a fragment of placenta still attached. We do not believe, as many textbooks state, that retained placenta causes infection *per se*, but only when it blocks the cervix and dams back secretion, and then usually only causes a mild sapremia. In the latter case, that is where a piece of placenta blocks the internal os, it can be felt through the cervix on predischarge examination and removed with ovum forceps. A piece of placenta retained high up in the uterus which cannot be felt through the cervix and from which drainage is free, does not in our experience cause infection, and in the vast majority of cases will be passed with few untoward effects. If it is not passed, bleeding will continue and require operative removal.

We take no definite stand on the operative versus the wait-and-see or conservative method of treating incomplete abortions. Table VII shows that in the first 84 cases coming under this survey the prevailing regimen was wait-and-see, while in the remaining 116 cases we emptied more uteri by operation, largely because there was a more urgent call on our available hospital beds. We do not feel there are sufficient cases to make the figures of Table VII significant statistically. However, if we were asked to take a stand, we would probably favour the wait-and-see policy—the administration of oxytocics in an attempt to influence the uterus to empty itself

without instrumental aid. We would interfere only to remove with ovum forceps and without anæsthesia placental fragments that could be felt through the dilated cervix, leaving any other fragment to look after itself, except in the case where it causes continued bleeding. We are still not sure that dilatation and instrumental removal of placental tissue, particularly when accompanied by curettage, does not interfere with future fertility.

All products removed in the treatment room, or in the operating room under anæsthesia, were examined by the Department of Pathology. There were no cases of chorionepithelioma.

TABLE VII.

CONSERVATIVE VERSUS OPERATIVE REGIMEN

	1947–1948 Cases	%	1949–1950 Cases	%
Number of cases treated	84	100.0	116	100.0
Operative treatment under anæsthesia	28	33.3	62	53.4
Re-admitted	1	1.2	9	7.8
Pelvic infection	1	1.2	1	0.9
Treated for bloody discharge—medically	1	1.2	6	5.2

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FURTHER STUDY OF BLOOD CHOLESTEROL IN SCHIZOPHRENIA*

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IN A PREVIOUS WORK,[1] the authors have observed an increased *variability* of blood cholesterol levels in a group of schizophrenics, as compared with normal subjects. The mean variation percentages in a group of ten subjects were 7.54 and 13.66% for total cholesterol and cholesterol esters respectively, while a normal group (8 subjects) showed variations of only 6.02 and 7.49% for the same constituents. At that time, other investigators had already drawn the attention to this greater variability of metabolic constituents in mentally deficient individuals.[2]

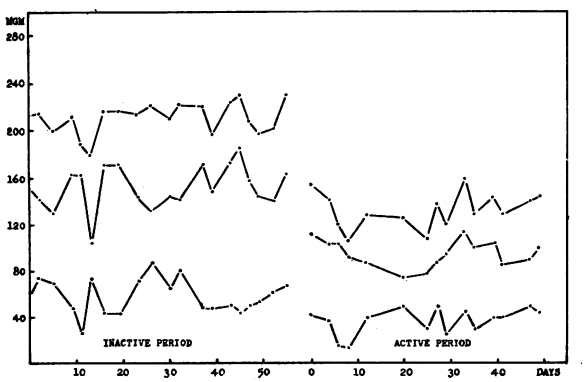

Fig. 1.—Serum cholesterol levels in a schizophrenic (Obs. 1) during inactive and active periods. In this graph and the following, the top curve represents total cholesterol level; the middle curve, cholesterol esters level; and the bottom curve, free cholesterol level.

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In nine out of the ten chosen subjects, there was also observed a definite parallelism between the total cholesterol and the cholesterol esters levels (Figs. 1 and 2), an indication that the esters level is the most readily altered. Calculation of the correlation coefficients to illustrate this parallelism revealed another peculiar behaviour of the schizophrenic group. It was found that this coefficient was nearly identical for every individual in the group, regardless of their respective cholesterol levels (Table IV). Such a similarity was not observed in the normal group. We then suggested that we had been dealing with a rather homogeneous biological, if not mental, group.

Two hypotheses arose immediately. Could

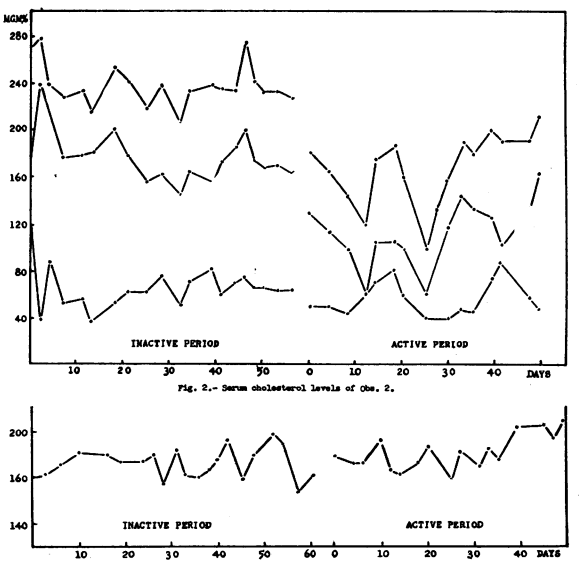

Fig. 3.—Serum total cholesterol level in Obs. 10.