Before and after therapeutic abortion

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Summary: Surveys conducted after therapeutic abortion were used to evaluate contraceptive use, to assess early physical and emotional effects and to provide feedback to the hospital nurses on their counselling role. The follow-up rate was only 53%. Of those who cooperated 82.9% were using effective contraception three months after abortion. Subjective morbidity was greater than anticipated. The main emotional response was relief coupled with some guilt and depression in a significant minority. The occurrence and significance of the after effects of abortion should be explained in advance. Training workshops for abortion counsellors would be useful. The surgical termination of pregnancy is only a small part of a comprehensive abortion service.

Résumé: *Les périodes précédant et suivant l'avortement thérapeutique*

Nous nous sommes servis des enquêtes menées après des avortements thérapeutiques pour évaluer l'usage de contraceptifs, pour établir les effets physiques et émotifs précoces de l'opération et pour fournir aux infirmières hospitalières des éléments utiles à leur rôle de conseillères. La proportion des femmes qui ont pu être suivies ne s'est élevée qu'à 53%. De ce nombre 82.9% ont utilisé des contraceptifs efficaces trois mois après l'avortement. La morbidité, sur le plan subjectif, a été plus élevée qu'on ne s'y attendait. La principale réaction émotive a été le soulagement, mais elle était accompagnée, chez une minorité non négligeable de femmes, d'un sentiment de culpabilité et de dépression. Il faudrait expliquer d'avance aux futures opérées la possibilité et la signification des réactions secondaires de l'avortement. A cet égard, il serait utile de créer des centres de formation des futures conseillères dans ce domaine. Mettre fin à une grossesse par une opération n'est, somme toute, qu'une partie infime d'un service d'avortement vraiment complet.

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Before therapeutic abortion is undertaken a process of decision-making occurs in the light of the alternatives available. This decision and the counselling it requires are not the subject of this paper. Once the decision is made, however, there are still a number of considerations that determine whether this surgical procedure will be truly therapeutic. These include preparation of the patient for the procedure and for its after effects, and counselling in contraceptive planning and sexual adjustment. The surveys reported here were instituted in an effort to improve this process.

Abortion and the hospital environment

Present Canadian law requires that abortion be performed only after approval by the therapeutic abortion committee of an accredited hospital. Interpretation of the law has been variable, resulting in marked local differences in the availability of abortion and the type of service provided.

In the hospital in which these surveys are based a rapid increase in the number of abortions performed has occurred since 1969. Adjustments have included: setting aside a specific bed quota for abortion patients, separate from accommodation provided for other obstetric and gynecologic patients; assigning nurses with a particular interest in these patients to avoid the intrusion of punitive attitudes; establishing a holding room in the unit to serve the growing number of women treated as outpatients; and creating a treatment room for intra-amniotic injections.

Within tight hospital budgets it is hard to find funding for abortion counsellors of the type who have been so useful in some of the independent clinics in New York and elsewhere.[1,2] An attempt is therefore made to use the nurses in this expanded role. Each patient, whether inpatient or outpatient, is seen prior to abortion by the nurse who explains the procedure and answers questions. The patient is asked to fill out an information and planning sheet on contraception unless she is booked for concurrent sterilization. This allows the nurse to assess the patient's needs and provide information, counselling and pamphlets as requested. The nurse also gives postoperative instructions, verbally and in writing, including warning signs of possible complications. Most of the patients have private gynecologists who frequently leave signed prescriptions for oral contraceptives which the nurse can distribute. Patients are given a postoperative appointment by their doctor.

The trends in caseload and in patient characteristics are shown in Table I. Associated with increased caseload is an increased tendency for patients to be single and nulliparous, and for total morbidity to be lower. Morbidity includes any fever, bleeding of over 500 ml, any trauma, and all other complications including phlebitis, aspiration and suicidal gestures.

Study groups

Two samples of consecutive patients were followed in 1973. The first group numbered 200 women who, upon giving consent to take part in follow-up, were asked to answer a questionnaire in hospital regarding their former contraceptive use and related variables. An attempt was made to contact these women three months after abortion to determine their subsequent contraceptive

use. This was done mainly by telephone by a nurse; a questionnaire was mailed to women without phones.

The second group comprised 150 women who were given a questionnaire to take home and asked to fill it out and return it two weeks after abortion in the stamped envelope provided. Questions concerned symptoms and feelings following abortion, as well as some evaluative feedback on the counselling received.

Table I—Abortion trends, Kingston General Hospital

	1971	1972	1973
Total abortions done	469	553	746
% D & C or suction	59	71	75
% hysterotomy	14	8	4
Gestational age < 13 weeks (%)	—	73	72.3
Recorded morbidity* (%)	14	10.6	6.4
% never married	62	61	65
% nulliparous	60	61	65
Mean age	23.9	24.5	22.5
% sterilized	11.1	10.6	9.5

*See text

Table II—Former contraceptive use in all 200 women

Method	Ever used No.	Ever used %	Used in past year No.	Used in past year %	In use at conception No.	In use at conception %
None	33	16.5	101	50.5	97	48.5
Pill	90	45.0	41	20.5	11	5.5
IUD	15	7.5	12	6.0	7	3.5
Condom	71	35.5	25	12.5	13	6.5
Diaphragm	17	8.5	5	2.5	3	1.5
Foam	29	14.5	9	4.5	7	3.5
Rhythm	87	43.5	65	32.5	26	13.0
Withdrawal	82	41.0			36	18.0

Table III—Former contraceptive use in 83 unwed primigravida teenagers

Method	Ever used No.	Ever used %	Used in past year No.	Used in past year %	In use at conception No.	In use at conception %
None	27	32.5	50	60.2	45	54.2
Pill	7	8.4	6	7.2	2	2.4
IUD	—	0.0	—	0.0	—	0.0
Condom	21	25.3	9	10.8	4	4.8
Diaphragm	1	1.2	—	0.0	—	0.0
Foam	5	6.0	2	2.4	2	2.4
Rhythm	33	39.8	32	38.6	10	12.0
Withdrawal	36	43.4			20	24.1

Table IV—Contraceptive methods used prior to conception

Category	Percent of 200 women in a category at: Month 12*	Month 6	Month 3	Month 2	Month 1*
Pill, IUD	15.5	16.0	14.5	12.0	7.0
Condom, foam, diaphragm	7.0	8.0	11.0	12.5	12.0
Rhythm, withdrawal	6.5	10.0	18.0	21.5	28.5
Abstinence	38.5	37.0	26.5	18.0	0.0
Unprotected exposure	5.0	11.0	15.0	22.0	45.5
Pregnant	5.0	2.0	0.0	0.0	0.0
No reply	22.5	16.0	15.0	14.0	7.0

*Month 1 = month of conception; Month 12 = 11 months earlier

Results

Successful follow-up was achieved in only 52.5% of the first group and 53% of the second group. The demographic characteristics of those who complied and those lost to follow-up did not indicate any strong differences, but co-operation was less common among sterilized women and those who did not discuss contraception with the nurse in hospital.

The data on past contraceptive use (Table II) indicate that nearly 50% were using no method at conception and about another 31% were using only rhythm or withdrawal. Of the 11 women who became pregnant while using the pill eight could recall an irregularity in use. Many women had some past experience with contraception and a rather surprising 45% had once been on the pill, but among the unwed teenagers (Table III) pill use was only 8.4%. The most important teenage methods were withdrawal, rhythm and condom. Only 10% of the teenage group were using an artificial method at conception. Retrospective month-by-month data for all 200 women revealed that there was a drop in the use of effective methods with time, and that intercourse was begun in the two months prior to conception by 26% (Table IV).

The nurses recorded the contraceptive services they provided for the 200 women in the first group and indicated

Table V—Contraceptive services by nurse in hospital

Services provided	No. (%)
None	27 (13.5)
Brief answers only	55 (27.5)
Counselling	113 (56.5)
Not recorded	5 (2.5)
One or more pamphlets	149 (74.5)

Table VI—Contraceptive use three months after abortion

Contraceptive method	No. (%)
Pill	76 (72.4)
IUD	4 (3.8)
Condom	2 (1.9)
Sterilization	5 (4.8)
Other	0 (0.0)
Any method	87 (82.9)
No method	18 (17.1)
Total	105

that counselling was given to 56% and questions on contraception were answered briefly for an additional 27% (Table V).

At three months post abortion 82.9% were using some method of contraception (Table VI), and compared with past practice, effective methods replaced no method or less effective ones. Even women who had discontinued the pill because of side effects resumed its use following abortion. Nonusers were mostly young single women who indicated their plan to abstain from intercourse. Nonacceptors tended to have never used a method and to have rejected contraceptive information in hospital (Table VII).

The questionnaire to be mailed in after two weeks was returned by 80 women. We were impressed that three had been rehospitalized for complications (pelvic infection) elsewhere and six others had received antibiotics for possible infections, indicating that our statistics on morbidity are incomplete without follow-up. We were also impressed with the duration of bleeding reported, which lasted a mean of 10 days (Table VIII). Of 61 women who had been aborted by suction curettage, 17 described their subsequent bleeding as heavy or their cramps as severe. Of 19 women who had been aborted by intra-amniotic saline, five reported "heavy" bleeding or "severe" cramps and two reported breast engorgement.

Table IX presents the answers to a series of superficial questions on emotional reactions to the abortion experience. The most striking finding was relief. Just under half the women also reported some degree of guilt and reactive depression. Written-in comments by 65 women indicated relief, well-being, or thanks in 57 cases and negative comments mentioning their sadness or guilt in eight cases.

Feedback evaluation on the advice given indicated general satisfaction but there is still room for some improvement, particularly with respect to after effects (Table X). A number of comments indicated that the nurse's role was greatly appreciated.

Table VII—Effect of selected variables on contraceptive use after abortion

Variables	No. of women	No. followed	No. using	% using
Contraceptive history				
Used artificial method	41	26	26	100.0
Used rhythm-withdrawal	62	32	27	84.4
Formerly used	60	26	23	88.5
Never used	36	21	13	61.9
Services provided				
None	27	4	1	25.0
Brief answers	55	31	26	83.9
Counselling	113	66	57	86.4
Age				
14 - 17	47	28	20	71.4
18 - 19	43	21	19	90.5
20 - 24	44	21	20	95.2
25 - 29	30	16	15	93.8
30+	36	16	12	75.0
Marital status				
Never married	131	68	55	80.9
Currently married	50	24	23	95.8
Formerly married	19	10	8	80.0
Gestational age				
12 weeks and under	130	67	57	85.1
13 weeks and over	70	34	28	82.4
Postabortion check-up				
Yes	—	68	57	83.8
No	—	33	29	87.9

Table VIII—Subjective symptoms within two weeks of abortion

Bleeding duration (mean 10 days)	
0 — 1 day	2
2 — 4 days	5
5 — 9 days	25
10 — 14+ days	45
No reply	3
	80
Days until felt well and active again (mean 3.8 days)	
0 — 1 day	19
2 — 3 days	23
4 — 5 days	15
6 — 9 days	7
10 — 14+ days	10
No reply	6
	80

Table IX—Emotions surrounding abortion

Which of these feelings did you have? Please check:

	A lot	A little	Not at all	No answer
Upset to be pregnant	51	22	2	4
Depressed to be pregnant	39	21	14	6
Confused about what to do	25	25	25	5
Confused about who to talk to	15	22	37	6
Afraid certain people would find out	31	23	19	7
Afraid of having an abortion	16	40	17	7
Relieved after the abortion	59	17	—	4
Guilty after the abortion	6	27	41	6
Depressed after the abortion	4	28	39	9

Table X—Evaluation of counselling

Give your opinion of the advice you had from your doctor and from the nurses in hospital:

	Too much	Not enough	About right	Wrong advice	None	No answer
On whether or not to have the baby	1	5	51	—	15	8
On what to tell your parents and friends	3	5	38	—	20	14
On explaining the abortion procedure	—	12	63	—	2	3
On the discussion of birth control	2	5	63	—	3	7
On how you would feel after the abortion	—	17	49	2	6	7

Discussion

Attempts to follow abortion patients are difficult because they are afraid of breaches of confidentiality, they fre-

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Indications
Catapres has been used successfully to treat hypertension of all grades of severity.

Contraindications
There are no known absolute contraindications to the use of Catapres.

Warnings
If Catapres therapy is discontinued for any reason, withdrawal should be done gradually over several days rather than abruptly. There have been rare instances of rebound hypertensive crises following sudden discontinuation of high doses of the drug. This can be effectively controlled by reinstituting Catapres at the previous dosage level; however if more rapid control is necessary, intravenous infusions of alpha adrenergic blocking agents such as intravenous phentolamine (5-10 mg doses at 5 minute intervals up to a total of 30 mg) are effective in reducing the blood pressure.

Precautions
Patients with a known history of depression should be carefully supervised while under treatment with Catapres, as there have been occasional reports of further depressive episodes occurring in such patients.

As an abrupt withdrawal of Catapres followed in rare instances by an excess of circulating catecholamines, caution should be exercised in the concomitant use of drugs which affect the metabolism or the tissue uptake of these amines (MAO inhibitors and tricyclic antidepressants respectively).

A few instances of a condition resembling Raynaud's phenomenon have been reported. Caution should therefore be observed if patients with Raynaud's disease or thromboangiitis obliterans are to be treated with Catapres.

As with any drug excreted primarily in the urine, smaller doses of Catapres are often effective in treating patients with a degree of renal failure.

The use of Catapres during the first trimester of pregnancy is subject to the normal precautions surrounding the use of any drug. Animal tests have shown no evidence of foetal abnormality.

Adverse effects
The most commonly encountered side effects are initial sedation and dry mouth. However these effects are seldom severe and tend to be dose related and transient.

There are occasional reports of fluid retention and weight gain during the initial stages of treatment with Catapres. This side effect is usually transient, but the addition of a diuretic will correct any tendency to fluid retention in these cases.

Other occasional drug-related side effects which have been noted in literature include dizziness, headache, nocturnal unrest, nausea, euphoria, constipation, impotence (rarely), and agitation on withdrawal of therapy. Facial pallor has occasionally been noted at high dosage levels.

No toxic reactions have been observed on investigating blood status, renal function and liver function. Long-term treatment has shown no adverse effect on blood urea nitrogen levels, and in patients with pre-existing renal damage there is no suggestion of further impairment of the renal blood flow despite a fall in arterial blood pressure.

Dosage
Initially 0.05-0.1 mg four times daily. This dosage may be increased every few days until satisfactory control is achieved. *When used alone* the final dosage usually ranges between 0.2 and 1.2 mg daily. The last dose of the day should be given immediately before retiring to ensure blood pressure control during sleep.

Catapres used with a diuretic
Catapres has been used successfully together with chlorthalidone, and the thiazide and furosemide diuretics. Lower doses of Catapres or the diuretic may be used to achieve the same degree of blood pressure control whenever a diuretic is added to the Catapres regimen or vice versa. In these circumstances, most *mild-to-moderate hypertensives* can be controlled using only 0.3-0.6 mg of Catapres daily in divided doses.

Severe hypertensives have been successfully treated with a diuretic and *higher* doses of Catapres (frequently up to 1.2 mg daily and occasionally up to 5 mg daily). When extremely high doses of Catapres are necessary dosage adjustments should be made over a period of several months.

Catapres used with other antihypertensive agents
Catapres has been used together with methyldopa, guanethidine, bethanidine and hydralazine, and further reductions in blood pressure have been achieved.

Availability
Catapres is available as a white single-scored 0.1 mg tablet, impressed with the motif ⊂⊃ on one side and the Boehringer Ingelheim symbol on the reverse. Supplied in bottles of 50 and 500 tablets.

For further prescribing information, consult the Catapres Product Monograph or your Boehringer Ingelheim representative.

OVER 500 PUBLISHED STUDIES ON CATAPRES HAVE APPEARED IN THE WORLD-WIDE LITERATURE TO DATE.

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quently wish to forget the experience quickly and they often travel away from their home town to obtain abortion. One third of those we contacted after three months had not had a check-up with any doctor following abortion and these were almost all "private" patients.

A low rate of prior use of contraception has been well documented in abortion patients and is known to be associated particularly with the young unwed group.[3-5] Although the improved rate of use at three months is encouraging, much longer follow-up would be needed to establish the effectiveness of the abortion experience in motivating contraceptive use. The present rate of repeat abortion (4%) at this hospital is reasonable but is likely to rise.

As long as abortions are restricted to hospitals with committees, these hospitals are often obliged to make use of scarce resources and staff for a heavy additional load of urgent patients.

The service we have described still uses operating time and requires general anesthesia for most patients, and the nurses have expanded their traditional role without formal training in their new responsibilities. Ideally, trained counsellors should be part of an abortion service. Where they are not available, nurses should be trained to fill this role and there should be sufficient time to permit counselling activities. Bracken *et al*[2] have evaluated three techniques and feel that group counselling is more suitable for the younger patients and individual counselling for the more mature.

The most important finding of this study appears to be that the subjective after effects of abortion should not be lightly regarded and should be explained to the woman in advance.

Changes in the legal status of abortion, such as have been recommended by The Canadian Medical Association and many other organizations,[6] would overcome some of the logistic problems discussed. But whatever the legal or social changes, the necessity for meeting the patient's need for explanation and counselling will remain.

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