A study of two forms of contraception in general practice

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Since the production of the report the Scowen Committee, nearly all the patients in this practice on an oral contraceptive containing more than 50 microgrammes of oestrogen have changed to one containing 50 microgrammes or less. Many patients have had more side-effects on the lower dose. The intra-uterine device (IUD) has been reported as being almost as effective as the Pill (Tietze and Lewit, 1968; Mills, 1970), and so a comparison was undertaken.

Method

The first 100 patients returning to the surgery for repeat Pill prescriptions were compared with the first 100 patients fitted with an IUD, by the practice, who returned for checks. The size D Lippe's loop was used being the size with the lowest pregnancy and expulsion rate (Tietze, 1966; Mills, 1970). All the patients in both groups were married. Marital state did not determine selection but the first group had already been on the Pill for some time, and IUDs were not fitted in nulliparous patients. The only patients excluded from the study were those patients who were on the Pill for three months or less, and then changed or stopped because of side-effects.

No other method of selection was employed, and it is therefore assumed that the two groups represent a cross-section of the Pill and IUD populations of the practice. Both groups were assessed regarding previous conception, contraception, previous and present menstrual patterns, weight changes, headaches, nausea, depression, libido, premenstrual tension, breast changes, and vaginal discharge. The age range in group one was 18–46 (average 25·9) and the age range in group two was 20–44 (average 28·7).

The higher average age of the IUD group reflects the difference in parity—that of the Pill group ranging from 0–5 (average 1·5), and parity in the IUD group ranging from one to eight (average 2·25).

The length of time each patient had used the current form of contraception is shown in table 1.

TABLE 1

DURATION OF USE OF PRESENT CONTRACEPTION

Number of menstrual cycles	*Pill group*	*IUD group*	*Total*
0– 4	4	4	8
5– 9	19	18	37
10–14	36	27	63
15–19	9	18	27
20–24	5	4	9
25–29	12	15	27
30–34	6	13	19
35–39	3	1	4
40+	6	—	6
Total	100	100	200
Average	18·5 cycles	17 cycles	

Previous forms of contraception are shown in table 2.

TABLE 2

PREVIOUS METHODS OF CONTRACEPTION

Previous method of contraception	*Pill group*	*IUD group*
Nothing	40	22
Pill	39	44
Sheath	26	41
Cap	5	13
IUD	3	—
Pessaries	3	5
Withdrawal	1	—
Totals	117	125

Many patients had used more than one method of contraception in the past so that the total number of patients in each group in table 2 exceeds 100.

Of the Pill group 39 had between them used 51 different types of oral contraceptives previously, and 44 of the IUD group had formerly used 61 types.

Several reasons are given by those patients who changed from previous oral contraceptives; these are shown in table 3.

TABLE 3

REASONS GIVEN FOR CHANGING FROM PREVIOUS ORAL CONTRACEPTIVES

Reason	*Pill group*	*IUD group*	*Both groups*
(Unspecified)	15	21	36
Adverse publicity	12	7	19
Depression	6	13	19
Libido decreased	3	8	11
Weight gain	4	5	9
Desired pregnancy	5	4	9
Headache	5	2	7
Nausea	3	4	7
Break-through bleeding	3	2	5
Tension state	2	3	5
Varicose veins	1	3	4
Amenorrhoea	1	1	2
Mastitis	—	2	2
Vaginitis	—	2	2
Total reasons	60	77	137

The reasons for changing from an original oral contraceptive show, as expected, many patients doing so because of publicity about possible side-effects. However, these patients are often changing from a Pill with a higher to a lower oestrogenic content.

Of the three patients who had previously been fitted with an IUD, one had wished to become pregnant, one wished the device removed because of menorrhagia, and one lost the device by expulsion.

Results

Method stopped

Of the Pill group 29 stopped taking the Pill, and 26 of the IUD users no longer have the device *in situ*. The reasons for stopping each method are shown in table 4.

Pregnancy rate

There were no pregnancies in the Pill group and four patients became pregnant with the IUD *in situ* (2·8/100 women years). Another IUD patient became pregnant after unnoticed expulsion of the device.

TABLE 4

REASONS FOR STOPPING EACH METHOD

Reasons	*Pill group*	*IUD group*
Weight gain	7	
Break-through inter-menstrual bleeding	6	3
Headaches	6	
Depression	3	
Loss of libido	2	
Amenorrhoea	2	
Premenstrual tension	1	
Too expensive	1	
Wished to become pregnant	1	3
Menorrhagia		8
Became pregnant		4
Surgically sterilised for medical reasons		2
Expulsion of device		6
Stopped—all reasons	29	26

Expulsion rate (IUD group only)

Twelve patients lost their devices by expulsion. Of these one became pregnant and another wished to become pregnant, while the remaining ten were refitted with a similar IUD. Of these last ten, four again expelled the device and were refitted, three again expelling the device and then stopping the method.

Menstruation

Menstrual flow was decreased in 75 of the Pill group, five of whom developed very scanty periods, and a further two stopped the Pill because of amenorrhoea. The flow was increased in six of this group.

Menstrual loss was increased in 60 of the IUD group, in eight of whom it was sufficiently severe to require removal of the device. However, of this group 30 stated, that the menorrhagia was improving after the first few months. Three patients experienced lighter periods than previously.

Menstrual cycle

The menstrual cycle was regularised in 20 patients who started oral contraception and in five of the IUD group after insertion of the device. However, the cycle was still irregular in five other patients in the IUD group.

Dysmenorrhoea

In the Pill group two patients complained of a marked increase, four of a moderate increase, and 11 of a slight increase in dysmenorrhoea on starting an oral contraceptive; 35 noticed no difference and 48 experienced less discomfort.

Among the IUD patients, 12 were affected by a moderate increase and 11 by a slight increase in pain; 57 noticed no change and 20 said the pain was less.

Weight changes

Weight changes in the Pill group ranged from a loss of 28 kg (four stone) to a gain of 28 kg (four stone) with an average gain of 2 kg (four-and-a-quarter pounds) per patient. The comparable range for the IUD group was from a loss of 21 kg (three stone) to a gain of 7 kg (one stone)—an average loss of 1 kg (half-a-pound). The weight changes were not accurately measured, but are based on each patient's assessment of her gain or loss while on the present form of contraception.

Headaches

Twenty patients on an oral contraceptive complained of an increase in headaches, six of whom stopped this form of contraception for this reason. One patient said her headaches had improved.

In the second group, six patients complained of an increase in headaches and one mentioned an improvement since insertion of the IUD.

Nausea

Ten of the Pill group, and four of the IUD group claimed that they had more nausea on the present form of contraception.

Premenstrual tension and depression

In the Pill group 23 patients became tense, six of whom became more depressed as well; 14 of these, however, admitted to having previous premenstrual tension. One patient stopped the Pill for this reason.

Fifteen patients became depressed and a further six stated that previous depression had become worse. Four patients claimed to be suicidal, but only three of these elected to change from the Pill because of this; the fourth wished to try antidepressant drugs: 26 became less tense, and one less depressed on oral contraception.

In the IUD group 18 became more tense and six less tense since insertion. Not one mentioned depression.

Libido

Among the Pill group, 16 mentioned an improvement in libido and 33 complained of a deterioration, of whom five were worried about complete lack of libido, in three cases affecting the stability of the marriage. Two patients stopped the Pill for this reason.

Thirty-three patients with an IUD claimed an improvement in libido but 11 were troubled with diminished libido.

Breast changes

Eleven patients on oral contraceptives, compared with three with IUDs were inconvenienced by mastitis. Others in both groups mentioned increase in breast size, but this was usually associated with increase in weight by the patient.

Discharge

Five patients on the Pill were troubled by increased vaginal discharge, and in a further three it settled on treatment. One patient noticed less discharge.

In the IUD group nine patients experienced increased discharge, a further four settled on treatment while 11 claimed that their discharge was less since being fitted with an IUD.

Break-through bleeding

Apart from the first three months, 23 of the Pill patients experienced intermenstrual bleeding causing six to stop the method. Similarly, 27 of the IUD group were troubled, and three had the device removed.

Discussion

The most obvious fact is that many women in both groups (29 and 26, respectively), stopped each method for various reasons (27 and 21, respectively, because of direct side-effects). This is also shown by the variety and number of previous forms of contraception used by both groups. It is interesting that 83 of the total 200 had used oral contraceptives in the past.

The difference in age and parity of both groups confirm the preference of the nulliparous and younger patients for oral contraceptives, and the choice by the older and multiparous patients for the IUD. The IUD tends to be used more as a last choice before sterilisation, in spite of higher pregnancy rate than the Pill. The three patients who were previously fitted with an IUD elected for oral form of contraception this time.

The major side-effects causing patients to stop their methods of contraception confirm the findings of previous observers but some other interesting facts emerge.

One patient gave expense as her main reason for stopping the Pill, while several others mentioned this, but considered the Pill cheaper than having more children. Expense was also given, by some patients, as the reason for not being fitted with an IUD. It would appear from this that many patients would probably change from their present, cheaper, less effective methods of contraception if the Pill and IUDs were either free or cheaper.

The pregnancy rate, with this series, for those with an IUD *in situ* is 2·8/100 women years. This corresponds with Tietze, 1966 (2·8) and Mills, 1970 (1·91). Of the four patients who became pregnant, three were terminated on medical grounds, and one aborted spontaneously. However, even a low failure rate can cause problems for those who will not, or cannot, undergo a therapeutic abortion, and it may be that for these the Pill with its lower failure rate (nil in this series) is preferable.

Most of the side-effects of the Pill improved after several months as did the menorrhagia with an IUD. It does appear therefore to be worthwhile persuading the patients to persist with the method for several months (probably six months with the IUD).

Most of the intermenstrual bleeding in both groups tended to be minimal and infrequent. There appears to be no way of telling in advance which patients will develop menstrual problems.

It has been suggested that there may be a connection between depression and lack of libido on the Pill (West, 1968; Grant and Pryse-Davies, 1968). In this series the patients with depression did not appear to suffer from loss of libido, and vice versa.

The expulsion rate dropped from 12 per cent to five per cent after reinsertion of the IUDs, and though the numbers here are small, it appears that reinsertion is well worthwhile; whether this applies after a second expulsion is debatable.

Other side-effects, e.g. discharge, breast changes, nausea, appear to be more of a nuisance than a major problem.

It must be concluded that each of the two types of contraceptive discussed in the survey is far from perfect.

Summary

Two groups of patients from a general practice, the first consisting of 100 patients on an oral contraceptive, and the second of 100 patients fitted with a size D Lippe's loop (IUD) are assessed for failure rate and side-effects. Of the first group, 28 stopped the Pill, and 23 of the second group stopped the IUD, all for medical reasons. Previous contraception is described—39 in the Pill group and 44 in the IUD group were previously on an oral contraceptive. Three of the Pill group but none of the IUD group had previously been fitted with an IUD. The reasons for changing from one method of contraception to another are discussed.

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