

SPONTANEOUS CONCEPTION IN INFERTILITY PRACTICE

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Conception occurring during the initial evaluation of infertile couple prior to any recognised therapy is a very common observation. Many reasons have been ascribed to this form of spontaneous cure of infertility. It has been suggested that emotional factors may play a role in involuntary infertility (Weiss and English, 1975), and the spontaneous cure of infertility may be the result of psychophysiological alterations in the patients concerned. Parekh and Arronet (1972) have recognised conceptions occurring frequently following one or a number of tubal insufflation tests. Similarly, by undoing the minimal tubal dysfunctions, hysterosalpingography is believed to have a therapeutic role (Palmer, 1960; Gillepsie, 1965, and Mackey *et al*, 1971). By contrast, Drake and Tredway (1978) have recognised low coital frequency as the cause of infertility in couples who were basically normal. And improved coital frequency has been found responsible for pregnancy in these patients, proper coital advice being given at the time of initial clinic visits.

Whatever may be the mechanism promoting conception following the initial basic investigations, not all couple whose basic evaluations prove normal achieve a

pregnancy. In our earlier series of 75 couples, in whom the preliminary investigations including hysterosalpingogram failed to reveal any abnormalities and hence considered to be apparently normal, only 30 women (40.00%) became pregnant within 6 to 8 months of follow-up (Rajan and Joseph, 1979). It is possible that couple who achieve pregnancy following initial work-up are certainly normal, but those who fail to conceive are having some impediment for fertility which the routine investigative procedures could not unearth. Hence the latter group of patients have to be more carefully reviewed and elaborately investigated.

Thus, we identify 2 groups of infertile couple, one group conceiving spontaneously following the preliminary evaluations and hence not requiring elaborate investigations or any specific therapy, and the other in need of further investigations and appropriate treatment. It is easy to differentiate these 2 groups provided the basic investigations suggest some defects. However, if the basic investigations point out no abnormalities, deciding on further evaluation or optimistic waiting is a difficult task. In this presentation we intend to provide certain guidelines which may be of help in taking a proper decision in this respect. We feel that the infertile couple should be neither made to wait indefinitely nor unnecessarily investigated and treated.

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The guidelines suggested are based on the case records of 1148 infertile couple investigated since June 1976 among whom 160 couples (13.93%) had achieved pregnancy following the basic evaluation. The basic evaluation included, apart from case history and physical examination of both partners, seminogram (if necessary 3 samples), post-coital test in the mid-cycle, premenstrual endometrial biopsy, and tubal patency test by air insufflation, method during the first year and hysterosalpingography over the last 2 years. Following these investigations, if everything was found to be normal, it was our practice to allow a reasonable time for spontaneous results. A review of the records of 160 such couples who achieved pregnancy spontaneously, revealed some interesting observations as detailed in this communication.

Age of the Female

Considering the entire group of infertile couples, the age of the female partners ranged from 17 to 44 years with a mean of 24.15 years. Age group of the 160 women who conceived spontaneously did not differ significantly from that of the entire series. The youngest to conceive was 17 and oldest 37 years, and the mean age was 25.50 years. However, a spectacular number who conceived were below the age of 30 years, with the maximum number of 84 women (52.50%) in the age group of 21 to 25 years. Only 17 of the total women conceived (10.60%) were above the age of 30 years, and none above 40 years of age. (Table I).

From the above observation it appears that spontaneous conception following fertility work-up is a frequent phenomenon in younger women, and the incidence of conception makes a sharp decline after the age of 30 years. Hence optimistic waiting following the basic evaluations

TABLE 1

Age of the 160 Women who had conceived

Age group	Number	Percentage
Below 20 years	7	4.40
21 to 25 years	84	52.50
26 to 30 years	52	32.50
31 to 35 years	14	8.70
36 to 40 years	3	1.90
Total	160	100.00

must be advocated for young couple and attempt at elaborate investigation without giving a fair chance for spontaneous conception should be discouraged.

Duration of Sterility

Marriage-to-conception interval appeared to be a less significant factor among women who conceived spontaneously following infertility evaluation. The interval ranged from 9 months to 7 years, with a mean duration of 3.24 years. As shown in Table II, infertility duration

TABLE II

Duration of Infertility

Marriage-Conception interval	Number	Percentage
1 year and less	19	11.90
1 to 2 years	56	35.00
2 to 4 years	59	36.90
More than 4 years	26	16.20
Total:	160	100.00

was 2 years or less in 75 women (46.90%), and more than 2 years and up to 4 years in 59 patients (36.90%). Nevertheless, 26 women had achieved pregnancy after 4 years of marriage (16.20%).

From the above data it is obvious that it is the age of the female partner more than the duration of infertility that influences the spontaneous results following

evaluation. Since 16.20 per cent of women who had conceived did so after 4 years of marriage and sometimes upto 7 years, younger couple with no discernible cause for infertility, irrespective of the duration of infertility, should be made to wait for spontaneous conception to occur. It should be the age of the female that will determine the need for further evaluation and treatment.

Investigation—Conception Interval

Notwithstanding the fact that spontaneous conception has occurred even after 7 year of marriage, an interesting observation is that those who had conceived did so within a short period following the basic investigations. Among the 160 women who conceived, 95 pregnancies (59.40%) were conceived within 3 months of investigation, and another 25 (15.60%) within 6 months. Otherwise, 75 per cent of the spontaneous conceptions occur within 6 months of infertility work-up. Between 7 to 12 months only 34 (21.30%) pregnancies were conceived, and the remaining 6 were conceived after 1 year. While conception after 1 year of investigation was very rare (3.70%), there was no incidence of spontaneous conception after 2 years of investigation. (Table III).

Obviously, this observation on investigation-conception interval appears to be highly relevant to this study. The fact

that about 60 per cent of conceptions were recorded within the first 3 months of investigation, and 75 per cent of the conceptions have occurred within 6 months of investigation cannot be overlooked. If one goes by this observation, a 6 months period of optimistic waiting, after the initial work-up reveals no discernible cause for infertility, is highly justifiable. However, since the chance for conception is negligible after 1 year it is doubtful whether postponing further evaluation benefits the couple.

Since the chance for spontaneous conception makes a sharp decline after the age of 30 years and 75 per cent of the pregnancies were conceived within 6 months of infertility work-up, the following must be a practical guideline: Younger women, below the age of 30 years, should be left alone for a period of 1 year after the basic investigations, for spontaneous conception to occur. A proper advice on coital frequency alone will suffice. Nevertheless, the period of waiting should be reduced to 3 months or at the most 6 months if the female partner is past the age of 30 years. Duration of infertility appears to be a less significant factor in deciding on further investigation or optimistic waiting.

Summary and Conclusion

Analysis of case records of 1148 infertile couple investigated over a period

TABLE III
Investigation-Conception Interval

Investigation-conception interval	Number No.	Conceived %	Total No.	Conceived %
Within 3 months	95	59.40	95	59.40
4 to 6 months	25	15.60	120	75.00
7 to 9 months	14	8.80	134	83.80
10 to 12 months	20	12.50	154	96.30
1 year to 1 year and 6 months	4	2.50	158	98.80
1 yr. & 6 months to 2 years	2	1.20	160	100.00

of 3 years, has revealed spontaneous conception occurring in 160 women (13.93%) following basic infertility work-up.

Just more than 50 per cent of those who had conceived were 25 years or less, and about 90 per cent were below 30 years of age.

About 60 per cent of conceptions have occurred within 3 months of investigation, and 75 per cent within 6 months. Spontaneous conception occurring after 1 year of investigation is negligible.

Duration of infertility was a less significant factor compared to age of female partner and investigation-conception interval.

Since a considerable number of women conceive following the preliminary infertility work-up and prior to any recognised therapy, a reasonable period of waiting with reassurance and proper advice on coital frequency is justifiable if the basic investigations do not reveal any defects in the couple. Our observation is that younger women, below the age 30 years, can hope to conceive within 1 year following the initial work-up, and those who are above the age of 30 can wait for 3 months or at the most for 6 months.

If conception has not occurred within this period, further detailed evaluation of the couple is mandatory to unearth any disorder which has not been detected by the simpler routine investigations.

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