INVESTIGATIONS IN INFERTILITY AND THE SUCCESS RATE IN UNEXPLAINED INFERTILITY

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SUMMARY

Reassurance, sexual advice, proper timing of coitus and thorough investigations achieved a pregnancy rate more than any chance pregnancy rate, and should play a major role in the treatment of unexplained infertility. The method is simple, cheap and has no complications.

None of the various empirical regimes seem to justify their superiority over the methods adopted by us.

Introduction

Unexplained infertility should be diagnosed only when no major or minor abnormality can be detected in either partner. Thus the woman should be ovulating regularly, have normal tuboperitoneal, uterine and cervical factors, and should have a husband with normal semen parameters. They should have been performing intercourse frequently, and attempting to conceive for at least two years.

The last two decades have seen massive strides in our knowledge of reproductive physiology. The discovery of newer drugs and hormone preparations have increased the success rate. However, as far as the sizeable number of unexplained infertility cases are concerned, woefully little progress has been made in understanding the causes and management of their problem. This provoked Behrman and Kistner (1975) to comment, that these couples are the most poorly managed of all infertile subjects, and they emphasized the need for continuing research in basic reproductive physiology initially to identify hitherto unknown abnormal conditions and subsequently to develop appropriate methods of treatment. The therapeutic approaches to unexplained infertility have ranged from simple reassurance to inspired empiricism, both being associated with a definite pregnancy rate. However, the claimed beneficial effects of either takes little or no note of the possibility that any observed pregnancies might have occurred by chance.

Material and Methods

We evaluated all cases of primary or secondary infertility of greater than two years duration, or if age is greater than

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thirty-five years, 1 year duration. They were investigated by history, physical examination and routine investigations C.B.C., urine, blood group, VDRL, BUN, blood Sugar—F and PP, semen, D and C Scopy and H.S.G. Then during the next two cycles their hormonal profiles were studied by means of E.B., cervical scoring, and PCT studies. Thus as far as possible, any abnormality of the couple was ruled out. Those patients who were normal (unexplained infertility) were given reassurance, the time of ovulation was identified for them and coital advice given. They were followed up for 6 months and the pregnancy rate noted. We then tried to determine the positive contribution of our treatment to the pregnancy rate as disinct from the chance pregnancy rate. We also compared our results with those of others using various empirical regimes.

Results

In all we studied 134 patients of infertility of which 23 had unexplained infertility. Only 13 of these patients followed up for 6 months and 7 of them conceived (54% pregnancies). In other words, 1 out of 2 patients who religiously follow up, conceived within 6 months. This is much higher than any chance pregnancy rate, affirming the value of our treatment.

Discussion

Table I illustrates that of 134 patients of infertility, 107 had primary infertility of which 19 (17.7%) had unexplained infertility, and 27 had secondary infertility of which 4 (14.9%) had unexplained infertility. Thus on an average 17.2% patients had unexplained infertility. This correlates with other studies as evident from Table-II.

TABLE II

Authors	Incidence %
Case and Zuspan	10
Sher and Katz	10
Raymont *et al*	12.5
Jones and Pourmant	16.2
Dor and Homberg	17.6
Cox *et al*	17.6
Present Series	17.2

Table III reveals that the conception rate immediately after consultations and investigations including H.S.G. and scopy in the unexplained infertility group is very high, 4 out of 23 i.e. (17.4%). Stated in other words, 4 out of 10 i.e. (40%) of

TABLE III

Conception Rate Immediately After Consultations and Investigations

Cause	Cases	Conceptions
Explained infertility	111	6 (5.4%)
Unexplained infertility	23	4 (17.4%)
Total	134	10

TABLE I

Incidence of Unexplained Infertility

Type of Infertility	Total No. of cases	Unexplained Infertility
Primary infertility	107	19 (17.7%)
Secondary infertility	27	4 (14.9%)
Total	134	23 (17.2%)

conceptions, occurring during this period are due to unexplained infertility.

Our conception rate of 17.4% is a lilttle too high to be just a chance occurrence. The beneficial effects may be due to:

(i) Reassurance and sexuxal advice during consultations. Fischer (1954) Ford (1953) and many others have highlighted the role of the psyche in unexplained infertility. Besides good number of patients lack in basic coital knowledge.

(ii) Well timed coitus as required for post coital test.

(iii) The therapeutic effect of HSG or Scopy.

(iv) Dilatation of the cervix in those with cervical stenosis.

TABLE IV
Pregnancy Rate During Follow-up

Total Cases	Pregnancies
9	3 (30%)

Out of 19 cases of unexplained infertility who had not conceived after investigations, only 9 were followed up for upto 6 months. Of these, 3 i.e. 30% conceived. Here again our treatment seems to have been effective, the high pregnancy rate being more than chance pregnancies could justify.

Table V illustrates that of 13 patients who were followed up for 6 months, 7 conceived giving a pregnancy rate of 54%. However, it can be conceded that the actual pregnancy rate may be lower because those 10 patients who did not follow up were probably failures on treatment.

TABLE V
Review of the Six Month Pregnancy Rate

Patients following up	Pregnancies
4 + 9	4 + 3
Total 13	7

Table VI shows that those with a shorter duration of infertility have a higher pregnancy rate. The fact that as many as 3 patients conceived after 7 years and more of unexplained infertility, shows that our treatment played a definitive role.

We are still gropping in he dark about unexplained infertility and many authors have extolled the virtues of various empirical regimes. However, it is yet to be proved that these are any better than placebos.

Table VII shows that one of the empiric treatments is Bromocriptine in the dose 2.5 mg twice daily. Muhlenstedt (1978) reported 2 pregnancies in 11 normoprolastinaemic women on Bromocriptine. Lenton *et al* using Bromocriptine alone

TABLE VI
Pregnancy Rate and Duration of Unexplained Infertility

	Duration of Infertility				
	2-4 Yrs.	4-7 Yrs.	7-10 Yrs.	> 10 Yrs.	Total
Conceptions	3	1	2	1	7
Patients	8	5	6	4	23

TABLE VII
Various Empirical Regimes

Empirical Regime	Time	Author	Pregnancies
1. Bromocriptine		Muhlenstedt	2/11 (19%)
2. Bromocriptine alone or with Clomiphene	9 Mths	Lenton	40%
3. Bromocriptine	6 Mths	Wright	29%
Placebo	6 Mths	Wright	22%
4. Clomiphene	2 Mths	Pepperell	10%
5. Doxycycline or Terramycin	5 Mths	Gnarpe and Friberg	27%
6. A I H		Kremer	4/20 20% (abnormal PCT)

or with clomiphene for upto 9 months reported a 40% pregnancy rate. An explanation for this may be obtained from the work of Bohnet and Friesen, (1976) who demonstrated that physiological levels of prolactin may still exert a deleterious effect, provided prolactin receptors had already been induced. However, the majority evidence points to these being chance conceptions. Wright *et al* (1979) in a double blind study showed that this drug was of no value. 29% of patients treated with Bromocriptine for 6 months conceived, but so did 22% treated with placebo. Besides in our own series we achieved a 54% pregnancy rate over 6 months.

Another regime is Clomiphene 50 mg daily for 5 days. Pepperell *et al* achieved a 10% pregnancy rate over 2 months, not very significant.

Another empirical regime is Doxycycline or Terramycin given for 10 days to treat latent U. Urealyticum infection. Gnarpe and Friberg achieved a 27% pregnancy rate over 5 months in patients with proved infection. If infection had been the cause of infertility, once cured the pregnancy rate should have been much higher. Besides our rate is comparable.

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