

# MANAGEMENT OF UNEXPLAINED INFERTILITY BY ARTIFICIAL INSEMINATION WITH HUSBAND'S SEMEN

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## SUMMARY

The age old problem of infertility still remains a challenge for the practicing Gynaecologist, especially when both the partners are found normal after the various tests of routine investigations. Here we have tried to solve the problem of such couples by artificial insemination with husband's semen which is having count more than 10 million/ml. Total 50 cases of infertility were studied in B. Y. L. Nair Charitable Hospital, Bombay between January 1983 to June 1983. After the routine investigations they were then subjected to artificial insemination with husband's semen around the time of ovulation and the pregnancy rate was then analysed.

### Material and Methods

Fifty cases of infertility were studied in B.Y.L. Nair Ch. Hospital out-door from January 1983 to June 1983. Total number of new patients who attended out door during this period twice a week were 216; out of these 50 patients of infertility who were of better intelligence and who were able to come for follow-up as and when wanted were selected for the trial. These

patients were subjected to routine investigations such as Hb, CBC, ESR, Bl. VDRL of wife and husband and husband's semen analysis. Blood sugar and kidney function tests were done in symptomatic patients when indicated.

Once all these investigations were found within normal limits they were subjected to premenstrual curettage with laparoscopy. They were then grouped according to the findings as follows:

		Tubal block	Anovulation	Normal findings
Total	50	3	11	36
Primary sterility	42	1	9	32
Secondary sterility	8	2	2	4

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Normal findings meaning uterus, tubes and ovaries normal, tubes patent and endometrium in secretory phase. Ano-

ovulation was decided after histopathology report of the endometrium.

The 3 patients of tubal block were omitted from the study and the rest of the patients were studied further. Patients with anovulation were given ovulation inducing drugs and their cervical mucus was studied serially.

As also the patients with normal findings were subjected to serial cervical mucus study as follows:

Day of M.C.	Quantity	Consistency	Spinnbarkeit	Ferning	Sperm Penetration test
10th	Scanty	Thick	2 cms	Absent	Poor
12th	Moderate	Thin	4 cms	++	Poor
13th	Copious	Thin & Watery	8 cms	+++	Good
14th	Copious	Thin & Watery	11 cms	+++	V. good
16th	Moderate	Thick	4 cms	+	Poor
17th	Moderate		Absent	Absent	Poor

was collected on the slide and sperm penetration test was done. The patients were then asked to report if they got their periods or otherwise and then repeat insemination was done in the next cycle in case of failure. Material used for insemination:

- (1) Sim's speculum.
- (2) Vulcellum.
- (3) Disposable infant feeding tube No. 6 to introduce in uterine cavity through the cervix.

- (4) Sterile syringes to introduce semen.

Along with cervical mucus study temperature chart was also maintained and the day of ovulation by correlating the cervical mucus and the temperature was detected. In the subsequent cycle the

*Results*

Conception with number of insemination required was as follows:

	Total No. of patients	1st cycle	2nd cycle	3rd cycle	4th cycle
Inseminated	38	38	33	18	17
Conception	21	5	15	1	Nil

study was repeated and patient was inseminated intrauterine with husband's semen on 3 consecutive days i.e. one day prior to ovulation, on the day of ovulation and one day after ovulation.

Prior to insemination cervical mucus

Percentage of conception with insemination is 55.26%. The patients on ovulation induction drugs were also subjected to serial cervical mucus study to detect ovulation. The dose required was as follows:

	Total No. of Pts.	50 mg.	100 mg.	150 mg.
Clomephen Citrate	11	11	6	3
Spontaneous conception	6	4	2	—
Conception with insemination	2	1	1	—



Discussion

Infertility being the main cause of many marital life problems it has become the prime interest of all gynaecologists. Here we have tried to simplify the methods of management in case of patients who are of normal findings but are unable to conceive. As sophisticated investigations like antisperm antibodies in cervical mucus and many other tests on

cervical mucus do not become available for common person of low socio-economic status, we have tried to bypass the cervical mucus barrier by introducing the tube directly into the uterine cavity and depositing semen of adequate quantity in to the uterine cavity around the time of ovulation. With this method we have been able to achieve considerably good results without any complications.

Case No.	Age	Duration of Infertility	Method of Treatment	Result
1	28	2 yrs	Intra-uterine insemination	Conception
2	32	1 yr	Intra-uterine insemination	Conception
3	25	3 yrs	Intra-uterine insemination	Conception
4	30	1 yr	Intra-uterine insemination	Conception
5	27	2 yrs	Intra-uterine insemination	Conception
6	31	1 yr	Intra-uterine insemination	Conception
7	29	2 yrs	Intra-uterine insemination	Conception
8	33	1 yr	Intra-uterine insemination	Conception
9	26	3 yrs	Intra-uterine insemination	Conception
10	34	1 yr	Intra-uterine insemination	Conception

Results: In this study 10 cases of infertility were treated by the method of intra-uterine insemination. In 10 cases conception was achieved. The results are as follows:

Case No.	Age	Duration of Infertility	Method of Treatment	Result
1	28	2 yrs	Intra-uterine insemination	Conception
2	32	1 yr	Intra-uterine insemination	Conception
3	25	3 yrs	Intra-uterine insemination	Conception
4	30	1 yr	Intra-uterine insemination	Conception
5	27	2 yrs	Intra-uterine insemination	Conception
6	31	1 yr	Intra-uterine insemination	Conception
7	29	2 yrs	Intra-uterine insemination	Conception
8	33	1 yr	Intra-uterine insemination	Conception
9	26	3 yrs	Intra-uterine insemination	Conception
10	34	1 yr	Intra-uterine insemination	Conception

Conclusion: Intra-uterine insemination is a simple and effective method of treatment for infertility. It is particularly useful in cases where the sperm count is normal but the sperm are unable to penetrate the cervical mucus barrier. The results of this study are encouraging and suggest that this method should be considered as a first line treatment for infertility.

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3	25	3 yrs	Intra-uterine insemination	Conception
4	30	1 yr	Intra-uterine insemination	Conception
5	27	2 yrs	Intra-uterine insemination	Conception
6	31	1 yr	Intra-uterine insemination	Conception
7	29	2 yrs	Intra-uterine insemination	Conception
8	33	1 yr	Intra-uterine insemination	Conception
9	26	3 yrs	Intra-uterine insemination	Conception
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