ISSN: 0975-3583, 0976-2833 VOL14, ISSUE6, 2023

Original Research Article

To Analyze the Clinical Background of the Infertility and its Pathological Correlation in Endometrium Cases

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Abstract

Background & Methods: The aim of the study is to analyze the clinical background of the infertility and its pathological correlation in endometrium cases. The criteria for primary and secondary infertility were decided failed to conceive within one or more years of continuous marital life without the use of any contraceptive measure were considered to be cases of primary infertility while the cases in whom one or more pregnancies are followed by one or more years of involuntary barreneness were regarded as cases of secondary infertility.

Results: Most common presenting complaints were that of barrenness alone in both primary and secondary infertility cases. Infertility with menstrual disturbances was that the next common complaint. Relative frequency of complaint in primary and secondary infertility in 50 cases observed. The study is based on one cycle one biopsy basis. Endometrial curettage or biopsy was reported as a premenstrual procedure in all the cases.

Conclusion: Consciousness among people increasing day by day as the commonest complaint of both primary and secondary infertility was that of barrenness, in contrast to others who found menstrual disturbances as predominate complaint. Anovulatory cycle was the most common and important etiological factor of female infertility. Thus present study confirms that endometrial study is a marvelous help to the clinician and infertile women.

Keywords: clinical, infertility, pathological & endometrium cases.

Study Design: Observational Study.

1. Introduction

The earliest information available about the subject of sterility is in ‘Charak Samhita’ which is one of the oldest book in Ayurvedic Medicine, written by famous and eminent rishi ‘Charak’. An extensive classification has been made of the various types of defective birth passages and other diseases[1].

In reproduction both male and female partner play an important role. In female ability of reproduction is only limited to her reproductive period which lasts from menarche to menopause (15-45 years) [2]. During this period cyclical endocrinal changes occur in female reproductive organs which make her capable for conception whenever possible.

Endometrium is the uterine mucous membrane above the level of internal os, below this is the endocervical epithelium. Thus endometrium line, the body and fundus of uterus. This sharp distinction is predicted on the remarkable ability of the endometrium to respond in cyclic fashion to the ovarian hormones known as "Menstruation".

The endometrium is a specialized form of connective tissue characterized by a remarkable ability and sensitivity to the ovarian secretions and an amazing regenerative capacity towards

ISSN: 0975-3583, 0976-2833 VOL14, ISSUE6, 2023

restoration after a menstrual flow[3]. At one time it was considered to be a type of spread-out lymph gland and frequently there are focal areas of lymphoid tissue scattered about[4].

2. Material and Methods

The present work includes study of endometrium from cases of infertility whose biopsy material was sent for histopathological examination Tertiary Care Centre for 01 Year on 50 patients. The criteria for primary and secondary infertility were decided failed to conceive within one or more years of continuous marital life without the use of any contraceptive measure were considered to be cases of primary infertility while the cases in whom one or more pregnancies are followed by one or more years of involuntary barreneness were regarded as cases of secondary infertility.

Inclusion Criteria:

Women in the reproductive age group (15-45 years) in whom diagnosis of infertility – primary and secondary was made clinically underwent endometrial curettage (D & C) or endometrial biopsy as part of a routine infertility evaluation, were included.

Exclusion Criteria:

The male factor being excluded

3. Result

Table No. 1: Age wise distribution of cases of primary and secondary infertility

Age group in years	Primary infertility		Secondary infertility		Total	
	No.	%	No.	%	No.	%
15 – 20 years	07	19.4	02	14.2	09	18.00
21 – 25 years	15	41.6	03	21.4	18	36.00
26 – 30 years	11	30.5	05	35.7	16	32.00
31 – 35 years	02	5.5	03	21.4	05	10.00
36 – 40 years	01	2.7	01	7.1	02	4.00
Total	36		14		50	

Cases under observation were grouped in 05 categories in range of 15 to 45 years i.e. fertile period of a woman. The commonest age group in which the patients were analyzed was 21-25 years which included 18 cases. Average age of primary infertility = 23 years. Average age of secondary infertility = 27 years. Youngest patient of series was 17 years and oldest was of 40 years.

Table No. 2: Presenting Complaints in cases of primary and secondary infertility

Presenting Complaints	Primary infertility	Secondary infertility	Total
Infertility alone	22	05	27
Infertility and menstrual disturbances	07	07	14
Infertility and pain in abdomen	03	01	04
Infertility and Leucorrhoea	03	02	05

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Most common presenting complaints were that of barrenness alone in both primary and secondary infertility cases. Infertility with menstrual disturbances was that the next common complaint. Relative frequency of complaint in primary and secondary infertility in 50 cases observed.

Table No. 3: Histopathological Pattern

	Histopathological Pattern	Total Number of Biopsies
Anovulatory	Simple proliferative	14
Ovulatory	Early secretory Late secretory	08 17 } 25
Hyperplasia	Hyperplastic Swiss Cheese	2 2
Hormonal imbalance	-	1
Endometritis	Chronic nonspecific Tubercular	1 1
Miscellaneous	Atrophic Endometrial polyp Progesterone exhaustion reaction Dysplasia	1 1 1 1

The study is based on one cycle one biopsy basis. Endometrial curettage or biopsy was reported as a premenstrual procedure in all the cases.

4. Discussion

Non-specific chronic endometritis may follow abortion or delivery, can complicate any lesion obstructing uterine drainage, quite common in women using an intrauterine contraceptive device[5].

The incidence of infertility in women with chronic endometritis has been variously estimated at between 2 and 10% and any reduction in reproductive capacity is probably due either to disturbed cyclical activity of the endometrium or to associated tubal inflammatory disease, Incidence of infertility 3.3% in study of chronic endometritis in different gynecological disorders[6].

Plasma cells to be a defining feature, while the presence of plasma cells is not necessary to establish the diagnosis of chronic endometritis although they are often present[7].

Tuberculosis is endemic in India. It commonly affects pulmonary system but may affect any organ in the body. Female genital system is not an exception. Genital tuberculosis commonly affects endometrium, fallopian tube and also cervix and ovary[8&9]. Tubercular endometritis is almost invariably accompanied by infertility. The clinical features of tubercular endometritis are not constant and do not give a definite clinical clue. Most of the cases are silent and healthy patients attending the hospital, simply for infertility or menstrual disorders. In India the incidence varied from lowest of 1% . In the present study the total incidence was 2.0% similar to Zawar (2002) 2.0%[10].

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5. Conclusion

Consciousness among people increasing day by day as the commonest complaint of both primary and secondary infertility was that of barrenness, in contrast to others who found menstrual disturbances as predominate complaint. Anovulatory cycle was the most common and important etiological factor of female infertility. Thus present study confirms that endometrial study is a marvelous help to the clinician and infertile women.

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