The Value of Endometrial Biopsy in Infertility

Pages with reference to book, From 304 To 305

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Abstract

A retrospective report of 3475 endometrial biopsies in infertile females is presented. Seventy percent were from cases with primary and 30% with secondary infertility. Biopsies were normalin 70% of cases. The remaining had proliferative endometrium (11.5%), chronic endometritis (12%), endometrial hyperplasia (3%), TB Endometritis (2.6%) and Cervical or Endometrial Polypi (0.9%). The procedure is useful in early diagnosis and management of these problems (JPMA 33: 304, 1983).

Introduction

Approximately 10% of married couples fail to achieve conception between puberty and the menopause. In about 25% of instances, the husband is responsible, but in our communities, the wife is always blamed and usually she is the one sent to consult a doctor.

Premenstrual endometrial biopsy is amongst the many investigations done to ascertain the cause of infertility in females. Done correctly and at the appropriate time in the menstrual cycle, it gives valuable information regarding ovulation and the hormonal status. It is also the only reliable method of the diagnosis of genital tuberculosis. In this retrospective study the diagnostic yield of this investigation has been evaluated.

Material and Methods

Three thousand four hundred and seventy five endometrial biopsies received by the pathology department of Khyber Medical College between 1973-1977 were reviewed. All biopsies taken in the premenstrual period were preserved in 10% formalin and processed according to the standard laboratory techniques. Staining was done with eosin-haemotoxylin.

Results

Of 3475 premenstrual endometrial biopsies 70% were from women with primary and 30% with secondary infertility. The duration of infertility was less than 3 years in 71.9% and over 3 years in 28.05%.

The age distribution is shown in Table 1.

Table I

Endometrial Biopsy in Infertility.

Age Distribution (Years)	No(%)
15 - 19	174(5.0)
20 - 24	660(19.0)
25 - 29	915(26.3
30 - 34	607(17.5)
35 - 39	351(10.0)
40 - 44	85(2.5)
45 - 49	16(0.5)
Un Known	667(19.2)

Sixty two percent were between the ages of 20-34 years, 5% were less than 20 years and 3% over the age of 40 years.

In 1770 (72.5%) of Primary infertility and 672 (65%) of secondary infertility cases, the biopsy showed normal secretory endometrium. Proliferative endometrium was found in 236(9.7%) of Primary infertility, 158(15.3%) of secondary infertility and endometrial hyperplasia in 64 (2.6%) and 42(4.1%) cases, respectively. Chronic endometritis was reported in 295(12.1%) women with Primary infertility and 118 (113%) with secondary infertility. The prevalence of Tuberculous endometritis was found to be 2.4% and3.1% in primary and secondary infertility respectively and endometrial and cervical polypi were present in 0.7% and 1.1% cases respectively (Table-II).

Table II

Endometrial Biopsy in Infertility.

Histological Diagnosis	No(%)
1. Normal Secretary endometrium	2442(70%)
2. Proliferative endometrium	394(11.5%)
3. Chronic endometritis	413(12%)
4. Endometrial hyperplasia	106(3%)
5. Tuberculous endometritis	90(2.6%)
6. Endometrial and Cervical polypi	30(0.9%)

Discussion

Endometrial biopsy, a simple and convenient procedure gives important information regarding ovulation and the presence of any pathology especially infections like tuberculosis. For meaningful results the exact timings and the site of the biopsy are important.

Noyes (Behrman and Kistner, 1975) suggests that two or three basal body temperature (BBT) cycles should be charted and endometrial biopsy should be done during at least two B.B.T. cycles on the 6th and 9th post ovulatory days. The specimen should be obtained from the superficial endometrium high up in the uterine cavity. The tissue should be fixed in Bouins fluid. The slides should be reviewed by both, the pathologist and the referring gynaecologist.

Thirty percent of the premenstrual endometrial biopsies were abnormal. This simple procedure will therefore help in the detection of patients with chronic infections like tuberculosis, who may conceive if the treatment is instituted in time. The limitations cf the procedure in our population is the incorrect information about last menstrual period (LMP) and the inability of the patient to maintain charts of B.B.T. accurately.

Acknowledgement

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Reference

1. Behxman, SJ. and Kistner, R.W. Progress in infertility. 2nd ed. Boston, Little, Brown, 1975.