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Clinical and Hormonal Profile of Oligomenorrhoea in Bhaktapur Hospital

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ABSTRACT

Aims: To analyze the clinical and hormonal profile of patients presenting with oligomenorrhoea in outdoor consultation.

Methods: This is an observational descriptive study conducted between January to April 2022 in Bhaktapur Hospital. Data were collected in outpatient clinic of Department of Obstetrics and Gynecology. Descriptive parameters were analyzed.

Results: There were 80 patients enrolled in the study. Cause of oligomenorrhoea was identified in only one-third of cases. Common diagnosed cause of oligomenorrhoea was Polycystic Ovary Syndrome (16;20%) followed by thyroid disorder (8;10%) and hyperprolactinemia (2;2.5%).

Conclusions: The most common identified causes of oligomenorrhoea were polycystic ovarian syndrome and thyroid disorder but two-third of cases had no any identifiable cause.

Keywords: hyperprolactinemia, oligomenorrhoea, PCOS, thyroid disorder

INTRODUCTION

Infrequent menstrual cycle that is longer than the accepted interval is defined as the oligomenorrhoea.^{1,2} It is one of the most common menstrual disorder seeking medical attention. Patients have menstrual interval between 35 and 90 days or a total of 5-7 cycles in a year.^{3,4} The prevalence of oligomenorrhoea is increasing in recent decade ranging from 12-15.3% according to different studies worldwide.⁵

Polycystic ovary syndrome (PCOS), thyroid disorder, hyperprolactinemia are the commonest endocrine causes of menstrual cycle disorder.^{6,7} It is estimated that 75-85% of women with oligomenorrhoea have PCOS.⁸ The purpose of this study is to determine the common causes of oligomenorrhoea that may help guide further evaluation in clinical practice.

METHODS

It is an observational descriptive study conducted from January to April 2022 in Bhaktapur Hospital attending the Gynecological outpatient clinic. Consecutive cases of oligomenorrhoea were included. Patients from 15 to 45 years of age having ultrasonography report of abdomen and pelvis, thyroid function test, HbA1C (Glycosylated Hemoglobin), urine for pregnancy test and serum prolactin were included in the study. Patients with positive pregnancy test and incomplete documents were excluded from the study. Data were entered in the SPSS and descriptive analysis was performed.

RESULTS

There were 80 cases presented with oligomenorrhoea in four months in outpatient clinic. The mean age was 27 years (range 17-45); 48 of them were married; and 32 were unmarried and half of them were in 25-35 age group. [Figure-1]

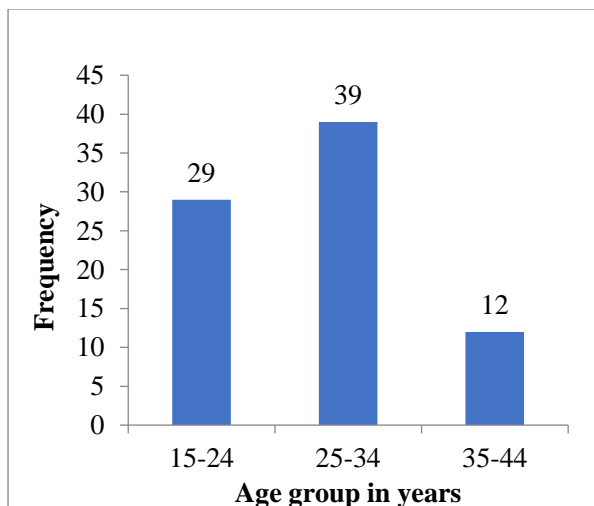


Figure-1: Distribution of cases by age (N=80)

Out of them 54 (67.5%) cases had no any identifiable cause based on the tests performed. On remaining one-third (27;32.5%), the endocrinological

abnormalities found were Polycystic ovary syndrome (20%), thyroid dysfunction (10%) and hyperprolactinemia (2.5%).

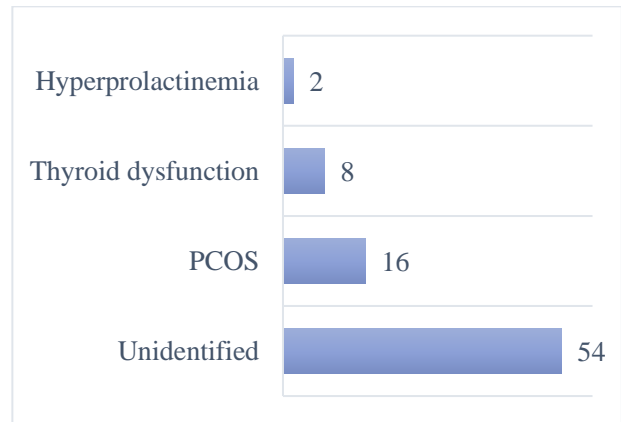


Figure-2: Frequency distribution of causes of oligomenorrhoea (N=80)

Among 16 patients who had PCOS findings in ultrasonography, they presented with acne, hirsutism and glucose intolerance. [Figure-3]

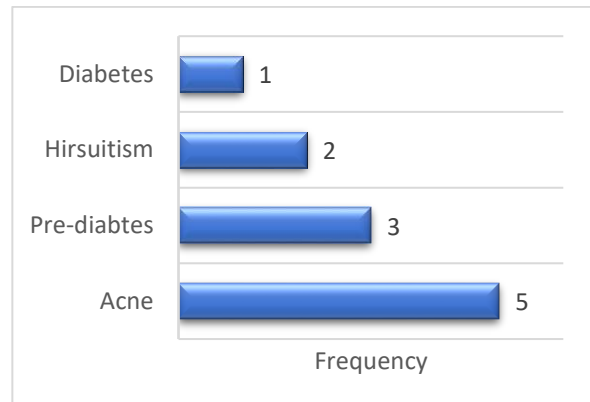


Figure-3: Clinical presentation of PCOS with oligomenorrhoea (N=16)

DISCUSSION

Oligomenorrhea is the most frequent menstrual cycle alteration among reproductive age groups. Appropriate diagnosis and treatment are crucial for a complete recovery and to prevent metabolic and reproductive problems in the future. Many causes are found, mainly functional and endocrine abnormalities.

Among the diagnosed cases, PCOS was the commonest etiology in our setting. However, 66% cases did not have an identifiable cause which may be due to limitation in hormonal evaluation in resource limited OPD setting and poor socioeconomic condition of the patient who are unable to pursue further diagnostic tests.

Johnstone et al⁹ reported a 32% prevalence of PCOS among ovulatory women, with 62% occurring in 25- to 30-year-old women and 7% in the 41- to 45-year-old women. My study also has a similar finding, women between age group 25-35 has more PCOS.

So-Jung Liang et al¹⁰ found that oligomenorrhic adults who have PCOS have hyperandrogenism symptoms like acne and hirsutism. However, in my study only 8.8% had acne and 2.5% had hirsutism. This feature may vary because of environment and different ethnicity. But they found hyperandrogenism was more common in young adults and my study shows the similar findings.

In my study, 10% had thyroid dysfunction, this findings were 3 times more than the study done at Libya (3%).¹¹ This might be due to differences in ethnicity, stress level and eating habits.

Hyperprolactinemia was observed only in 2.5% of patients in my study. This observation differs in study done by Agbaht K et al¹² who found 16.2% had hyperprolactinemia and PCOS alongside; 3.8% had prediabetes and 1.3% had diabetes in my study and was common in women aged >40 but the study done by Weerakiet S et al¹³ showed 17% had Diabetes as the reason might be large study population in their study.

Because of limited source available in the hospital, this study could not explore more hormonal reason to have a oligomenorrhoea.

CONCLUSIONS

In conclusion, this study showed that polycystic ovary syndrome was the common diagnosis followed by endocrine dysfunction. However, more than half of the patient had diagnosis unknown. It may be due to the limited resources. Further study about hormonal and reproductive issues in various phase of reproductive life is recommended.

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