



STUDY OF PUBERTY MENORRHAGIA IN A TERTIARY CARE CENTRE

Obstetrics & Gynaecology

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ABSTRACT

Introduction: Puberty Menorrhagia is one of the commonest menstrual abnormalities during adolescent age group. Heavy menstrual blood loss may result into anaemia and panic reaction in girl child and her parents. Early diagnosis and treatment are the keystones in the management of puberty menorrhagia. Reassurance, counseling, and correction of anemia play an important role in the management of such cases. **Material and Methods-**This study was conducted in the department of Obstetrics and Gynaecology at Dr. N. Y. Tasgaonkar Institute of Medical Science over a period of 6 months from July 2022 to December 2022. 28 patients were selected after considering inclusion and exclusion criteria. **Results-** Out of 28 cases of puberty menorrhagia, 15(53.57%) cases were admitted to indoor and remaining 13(46.42%) cases were treated on outpatient basis. It was observed that 53 percent of cases were in the age group of 13-14 years. The duration of symptom was less than three months in 61 percent cases. Anaemia was observed in 93% of cases, of which around 50% cases had severe anaemia. Anovulatory DUB was the commonest cause (71% cases) for menorrhagia, other causes being Hypothyroidism (10% cases) and Idiopathic thrombocytopenic purpura (7% cases). **Conclusions-** Puberty menorrhagia is distressing condition which can lead to severe complications and may require blood transfusions. Most of the cases are due to anovulatory cycles with immaturity of the hypothalamo - pituitary - ovarian - endometrial axis. Anovulation caused by immaturity of hypothalamic-pituitary-ovarian axis is the most common cause of puberty menorrhagia and medical management gives successful results in majority of the patients.

KEYWORDS

Puberty Menorrhagia, Hormonal therapy, hypothyroidism, Idiopathic thrombocytopenic purpura.

INTRODUCTION:

Puberty menorrhagia is defined as the excessive bleeding occurring between menarche and 19 years. Puberty is defined as a process of physical changes through which a child's body matures into an adult body capable of sexual reproduction. During the first year after menarche mean cycle interval is 32.2 days varying between 21 to 45 days. Normal menstrual flow rarely exceeds 7days and monthly average blood loss is estimated to be 35ml ranging between 10 to 80 ml. The onset of menstruation does not mean that ovulation has occurred. Initially, cycles are anovulatory and it may take many years before the menstrual cycles are normalized. Without ovulation, estrogen effect is unopposed by progesterone resulting in endometrial proliferation which outgrows its blood supply and architectural supports resulting in partial breakdown and shedding in an irregular manner.

Puberty menorrhagia is defined as excessive bleeding in amount (>80 ml) or duration (>7 days) between menarche and 19 years of age[1]. The common causes of puberty menorrhagia are anovulatory cycles, hypothyroidism, polycystic ovary syndrome (PCOD), and coagulation disorders[2,3]. Puberty menorrhagia -it is mandatory to exclude pregnancy, especially an incomplete abortion or ectopic pregnancy.

MATERIALS AND METHODS: The study was conducted in the department of Obstetrics and Gynaecology at Dr. N. Y. Tasgaonkar Institute of Medical Science over a period of 6 months from July 2022 to December 2022. 28 patients were selected after considering inclusion and exclusion criteria.

OBSERVATIONS AND RESULTS:

Out of 28 cases of puberty menorrhagia, 15(53.57%) cases were admitted to indoor and remaining 13(46.42%) cases were treated on outpatient basis. Anaemia was observed in 93% of cases, of which 50% cases had severe anaemia (Table 1). Anovulatory DUB was the commonest cause (71% cases) for menorrhagia, other causes being Hypothyroidism (10% cases) and Idiopathic thrombocytopenic purpura (7% cases) (Table 2). Majority of the cases responded to either progesterone therapy and remaining to either combination of oestrogen and progesterone or oestrogen alone. All the cases were exposed to hemostatic agents such as tranexamic acid or ethamsylate. Oral iron supplements were given in all cases. All cases with severe anaemia were given blood transfusion depending on haemoglobin level as per requirement. Cases with hypothyroidism were treated with supplementation of thyroxine hormone and thrombocytopenia was

corrected by platelet transfusions and other supportive treatment with the consultation of physician. Heavy uterine bleeding was controlled either by progesterone therapy or by starting combined oestrogen -progesterone hormonal pills.

TABLE NO.1

SR. NO	HAEMOGLOBIN LEVELS (gm%)	NO. of cases (total=28)	PERCENTAGE (%)
1	Less than 6	12	42.85
2	6-8	08	28.57
3	8-10	04	14.28
4	Above 10	04	14.28

TABLE NO.2

SR.NO	AETIOLOGY	NO. OF CASES(N=28)	PERCENTAGE (%)
1	Anovulatory DUB	20	71.42
2	Hypothyroidism	03	10.71
3	Idiopathic thrombocytopenic pupura	02	7.14
4	Polycystic ovarian disease	02	7.14
5	Others	01	3.57

DISCUSSION:

Menarche is the hallmark event in the life of adolescent girls as it marks the transition from childhood to puberty with menorrhagia which accounts for 50% of gynecological visits in adolescents. Most females bleed for 2-7 days during their first menses [4,5]. Abnormal uterine bleeding may be caused by ovulatory dysfunction, and bleeding patterns can range from amenorrhea to irregular heavy menstrual bleeding. Although ovulatory dysfunction is somewhat physiologic the first few years after the menarche, it can be associated with endocrinopathies due to hypothalamic- pituitary-ovarian axis disturbances, such as polycystic ovary syndrome and thyroid disease, as well as mental stress and eating disorders [6,7]. Puberty menorrhagia is excessive bleeding occurring between menarche and 19 years of age. It severely affects the quality of life. [8]. A review of literature shows that during puberty, maturation of the hypothalamic pituitary - ovarian axis is characterised by an increase in the frequency and amplitude of pulsatile GnRH, which initiates and regulates secretion of pituitary gonadotropins [9].

Claessens and Cowell reported 19% of adolescents with menorrhagia requiring hospitalization had an underlying coagulation disorder in their study [10]. Nonsteroidal anti-inflammatory drugs, tranexamic acid, and hormones constitute the main medical therapy in the treatment of menorrhagia with also accompanies blood or component therapy given in critical menorrhagia.

CONCLUSION:

Puberty menorrhagia is one of the commonest menstrual abnormalities during adolescent age group. Heavy menstrual blood loss may result into anaemia and panic reaction in girl child and her parents. Early consultations with Gynaecologist, performance of necessary investigations and treatment with hormones, haemostatic and haematinic drugs usually give relief. Adolescent girls should be educated about the normal and abnormal menstruation patterns. Regular consumption of iron rich food and iron tablet supplements helps in maintaining the haemoglobin status to normal level.

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