

DYSFUNCTIONAL UTERINE BLEEDING IN ADOLESCENTS

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Summary: Between 1970 and 1984 89 patients under 18 years of age were treated for dysfunctional premenarchal or postmenarchal bleeding. Patients' age varied from 8 to 18 years (average age 12.2 years). 12 cases were of dysfunctional bleeding in menarche and 68 were of menorrhagic or menometorrhagic menstruation after a period of 2 months to 6 years after menarche. Medical therapy was successful in all cases.

Key words: menarche, dysfunctional bleeding, metrorrhagia, adolescents.

INTRODUCTION

Dysfunctional menstrual bleeding in adolescents can occur in the first menstrual cycle after menarche. In these cases the menstrual flow before metrorrhagia is frequently irregular. Treatment of this pathology is most successful with hormones or more simply with hemostatic medications. Adequate treatment involves diagnosis and follow-up of the underlying hormonal dysfunction since recurrence may lead to infertility and sterility.

CASE HISTORIES

Between 1970 and 1984 89 patients under 18 years of age were admitted to the First Clinic of Obstetrics and Gynecology, Catania University Medical School, Catania (Italy) for dysfunctional menstrual bleeding.

The frequency of this pathology was 52.35% of admissions in patients under 18 years of age, the range being 8 to 18 years with an average age of 15.03 years. The age in which menarche appeared varied between 10 and 17 years with an average age of 12.2 years (graph 1). In 21 cases the patient was admitted for menometorrhagic menarche while in the remaining 68 cases the reason for admission was menorrhagia or menometorrhagia after a period varying between 2 months and 6 years from menarche (graph 2). In these cases the menstrual flux preceding dysfunctional bleeding was already of normal rhythm

in 29 cases, polymenorrhagic in 19 cases, and oligomenorrhagic in 11 cases.

9 of these patients also experienced menometorrhagic menstruation with subsequent normal flow until the actual pathologic menstruation. Dysmenorrhea occurred in 31 cases (43.83%) prevalently in the first day of cycle.

Admission was for menorrhagic menstrual flux in 45 cases (50.56%) and for menometorrhagia in 44 cases (49.43%) with an average duration of blood loss of 8.2 days (range 1 to 60 days).

Gynecological exam showed uterine hypoplasia alone in 23 cases (25.84%).

Blood chemistry tests performed included BUN, blood sugar, creatinine clearance, CBC with differential stain, hemosiderin, hemoglobin, transferrin, platelets, clotting tests, transaminases, serum protein, and urinalysis. Iron deficiency anemia was diagnosed (RBC < 3,800,000 mmcu) in 41 cases (46.6%) with lower hemoglobin values in 8.49%. In the rest of the cases blood chemistry values were normal.

Medical therapy was adopted in all cases. Initially hemostatic medications were administered along with estroprogestins in cases of lack of response to hemostatic medications alone. In heavy dysfunctional bleeding we avoid the use of progestins alone since in these cases there is a lack of sufficient endometrial tissue for a normal response to this medication. Therapy is begun with the administration of high doses of estrogen with the addition of progestins when hemostasis is achieved, which is an indirect sign of sufficient endometrial development. In other cases we administered 2 to 4 estroprogestin tablets containing norethisterone reducing dose to 1 tablet after a few days, and we suspended treatment when menstruation was desired.

Number of patients.

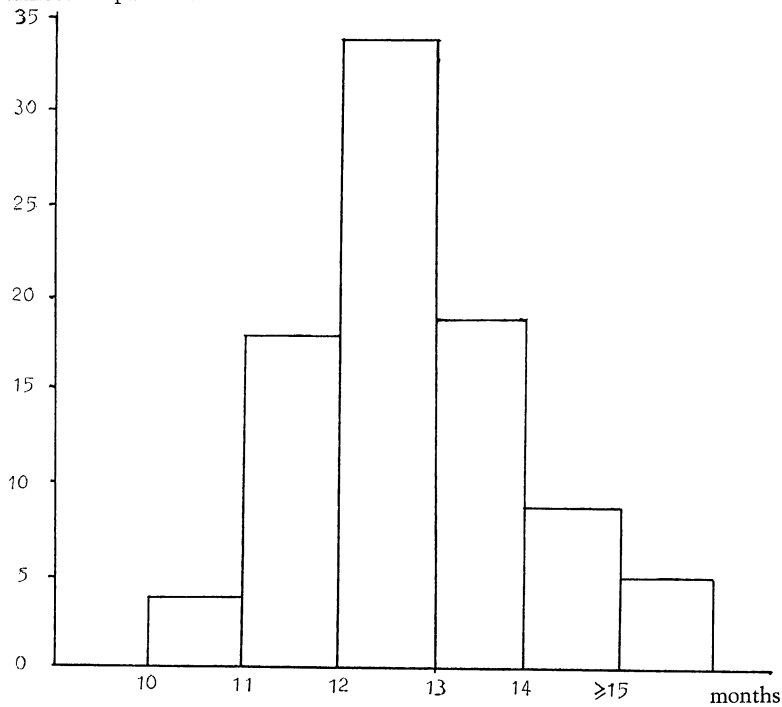


Fig. 1. — Age of menarche.

Number of patients.

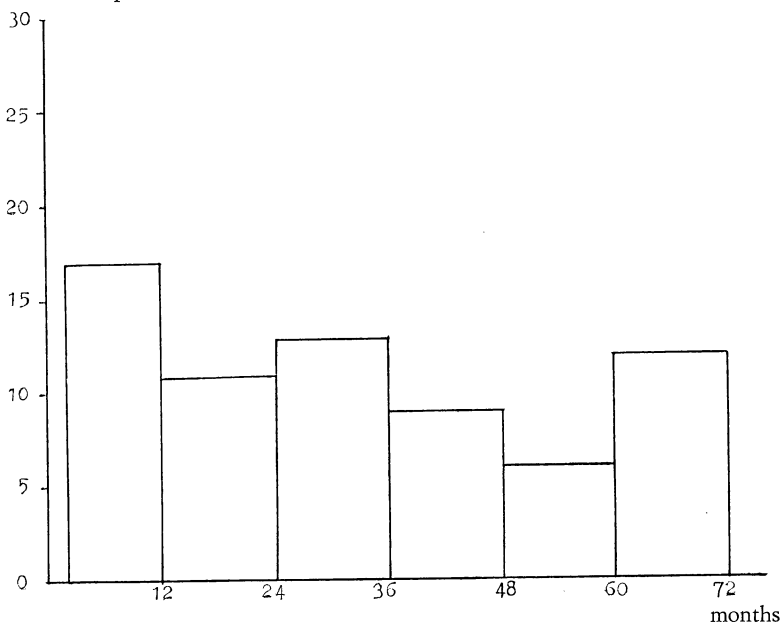


Fig. 2. — Interval of disfunctional uterine bleeding months from menarche.

Iron and hemostatic therapy was utilized in all cases, and was associated with progestins in 36 cases (40.44%). In 13 cases blood transfusion was performed (average quantity 450 cm³). Recovery was achieved in all cases after an average hospitalization period of 5.2 days (range 1 to 10 days).

DISCUSSION AND CONCLUSION

Dysfunctional menstrual bleeding is not rare in adolescents at menarche and postmenarche. In the patients studied general physical exam and blood tests did not show any systemic or local pathologies, thus the causes of bleeding may be dysfunctional due to absolute or relative hyperestrogenism with irregular maturation of the endometrium and/or inadequate luteal phase. These endocrine pathologies depend on alterations linked to disbalanced gonadal feedback, subhypothalamic modulations, biosynthetic activities of the ovary, and the receptor capacities of the organs involved. It has been reported that receptor proteins for estrogen are determined genetically and are also present before puberty. The synthesis of progesterone receptors is stimulated by estrogens, thus the maturation of receptor proteins for progesterone occurs a few cycles after menarche owing to adequate effect of estrogen on the endometrium.

Menarche represents the complete maturation of the hypothalamo-hypophyseal-gonad axis, and postmenarche represents a delicate moment in hormonal adjustment which can easily be disturbed by environmental influences (stress and psychological causes) or by the organism (metabolic

disbalance) in the psycho-physical development of the adolescent, for which the major problem seems to be not the resolution of a pathology that is fairly easy to cure with medical therapy, but the diagnosis of the origin of the pathological menstrual flux and the individuation of hormonal dysfunction which if not treated can lead to infertility and/or sterility in the future (^{4, 5}).

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