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Title: Too young to be an adult - A Case of Infantile Precocious Puberty

Introduction

Precocious puberty, marked by the early onset of secondary sexual characteristics, poses diagnostic and therapeutic challenges, particularly in very young children. Central precocious puberty (CPP), caused by early activation of the hypothalamic-pituitary-gonadal axis, is rare in infants. This report highlights a unique case of CPP in a 1-year 6-month-old girl with cyclical vaginal spotting and secondary sexual characteristics.

Through this case, we aim to enhance understanding of the early signs, diagnostic complexities, and tailored management strategies essential for optimising outcomes in such rare presentations.

Presentation

A 1-year 6-month-old female presented with cyclical vaginal spotting occurring every 30 days for the past 10 months, lasting 2 days without clots or associated symptoms such as pain, fever, or systemic complaints.

Mother reported no history of trauma, abuse of child, or familial hormonal conditions, and mother attained menarche at 18 years of age. The child was born at term with no antenatal or perinatal complications.

On examination, the baby was conscious, alert, and milestones achieved normally. Vital signs were normal. She weighed 16.5 kg and measured 93 cm in height.

No pallor, edema, or cyanosis. External genitalia appeared normal.Physical findings included breast development (Tanner stage 2) and sparse axillary and pubic hair (Tanner stage 2),

Investigations

Ultrasound revealed a mildly enlarged uterus for the age with an endometrial thickness of 3.2 mm, and the right ovary showed a dominant follicle (13x10 mm) and a mildly bulky appearance.

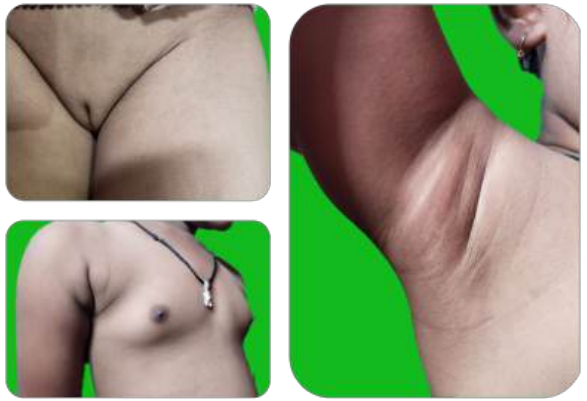
Hormonal assays indicated elevated FSH (7.50 mIU/mL) and LH (4.95 mIU/mL), with normal thyroid function. Brain MRI was normal.

Management

The patient was diagnosed with CPP and received a single dose of intramuscular Medroxyprogesterone (50 mg) with Leuprolide injection (Inj. Leuprolide Acetate 3.75mg Intramuscularly) monthly for three months for initial symptom control, followed by three-monthly Leuprolide injections (Inj. Leuprolide Acetate 11.25mg Intramuscularly) as GnRH agonist therapy.

Post-treatment, cyclical bleeding resolved, though secondary sexual characteristics remained unchanged. The therapy is planned to continue until age 10 to 11 years, with regular follow-ups for growth and developmental monitoring.

Pictures



Discussion

This case of central precocious puberty (CPP) in a 1-year 6-month-old female is notable for its early onset and rare presentation of cyclical vaginal spotting (Carel & Leger,). CPP stems from premature activation of the hypothalamic-pituitary-gonadal (HPG) axis, leading to early secondary sexual characteristics, rapid growth, and advanced bone maturation.

Diagnosis relies on clinical findings like breast development and pubic hair, with elevated LH and FSH levels and imaging to rule out central abnormalities (Antoniazzi et al.).

The patient's cyclical bleeding and secondary sexual signs confirmed CPP over premature thelarche, which lacks pubic hair or ovarian changes (Pescovitz et al.). Rare cyclical bleeding in CPP may result from early estrogen stimulating the endometrium (Laron & Kauli,). Ultrasound findings of a bulky ovary, dominant follicle, and thickened endometrium supported the diagnosis (Nebesio et al.).

Treatment with a GnRH agonist suppresses the HPG axis, halting progression, slowing maturation, and optimising height (Carel et al.). This patient responded well to MPA and GnRH agonist therapy, resolving bleeding. Persistent secondary sexual characteristics require monitoring and treatment adjustments. Early intervention ensures better outcomes and reduces psychosocial impacts of premature puberty (Kaplowitz,).

Conclusion

This rare case of infantile CPP underscores the importance of early diagnosis, individualized management, and regular monitoring to address clinical challenges and ensure optimal physical and psychosocial outcomes for affected children.

Conflict of Interest: Nil

1. Antoniazzi F, Zamboni G. Central Precocious Puberty: Current Treatment Options. Paediatr Drugs. 2004;6(4):211-231.
2. Carel JC, Leger J. Precocious Puberty. N Engl J Med. 2008;358(22):2366-2377.
3. Laron Z, Kauli R. Fifty Years of Growth Hormone Therapy for Children: What Have We Learned? J Clin Res Pediatr Endocrinol. 2000;2(4):151-162.
4. Pescovitz OH, Comite F, Cassorla F, et al. True Precocious Puberty Complicating Congenital Adrenal Hyperplasia: Treatment with Luteinizing Hormone-Releasing Hormone Analogue. J Clin Endocrinol Metab. 1984;58(4):576-581.