ABS 12: Precocious puberty and HIV INFECTION: Any association?

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Background: HIV infection and/or its treatment are associated with a variety of endocrinopathies. However, precocious puberty ascribable to HIV infection appears to be very rare.

Objective: To report a case of precocious puberty associated with HIV infection and review the association between HIV and precocious puberty.

Methods: A boy with evidence of premature puberty was referred for endocrine evaluation and management. A full history and physical examination were performed. Investigations carried out included bone age determination, abdominal ultrasound, cranial x-rays and basal gonadal evaluation. He was subsequently managed with progestogens to arrest further sexual development.

Results: The boy presented at age six years with an 11-month history of appearance of features of puberty but denied history of ejaculations or sexual relationship. He had tested positive to HIV five months prior to presentation after his mother was found to be seropositive. The patient denied history of blood transfusion. Pregnancy and early childhood were unremarkable. Physical examination revealed a healthy looking big for age boy, without café-au-lait spots, visual field defects, or palpable organ enlargement intra-abdominally. He was 1.48 m tall and weighed 39 kg. The B.P. was 80/60 mmHg. He had pubic hair of Tanner stage 4. The testes and phallic were of adult size. Basal plasma hormone assays showed testosterone of 0.8 ng/ml, LH of 13 mIU/ml, FSH of 10 mIU/ml, Cortisol 170 ng/ml(A.M), DHEA-S of 550 ng/ml. His bone age was between 9 to 14 years. Abdominal USS and skull X-ray were normal. He could not afford further investigations. He was placed on medroxyprogesterone acetate. Pubertal development has since not progressed.

Conclusion: It is conjectural that the HIV could have induced the precocious puberty in this boy but such association appears very rare as only one case could be found in the world literature. There is need to establish whether is one of the HIV-related endocrinopathies.