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【 PICTURES IN CLINICAL MEDICINE 】

Isolated Follicle-stimulating Hormone Deficiency Coincidentally Diagnosed by Hematospermia

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Key words: follicle-stimulating hormone, gonadotropin, hematospermia, infertility and pituitary

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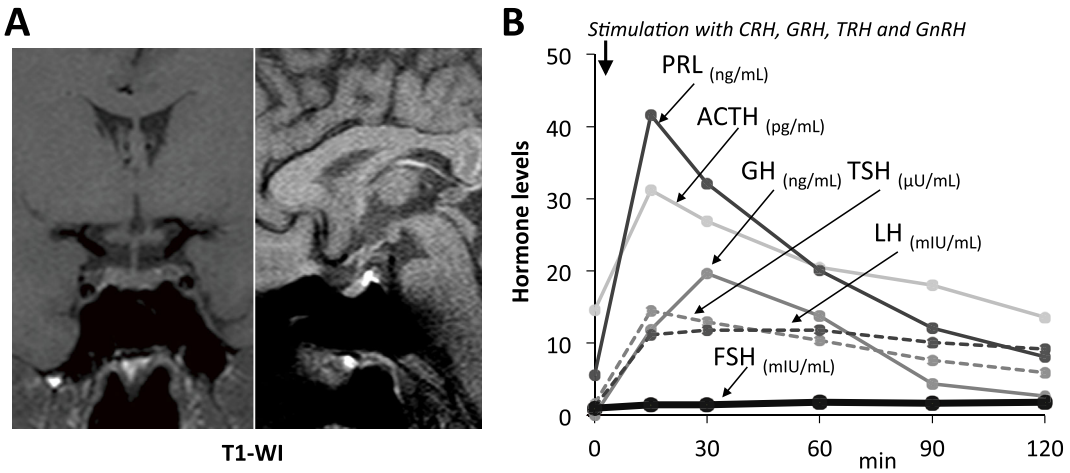

Picture.

A 28-year-old man was referred for hematospermia. He had no family history of hypogonadism and no remarkable history during puberty. His testis sizes were normal, and a semen examination revealed oligospermia (14×10^6/mL) with reduced motility (3%). His serum basal levels of luteinizing hormone (LH) and testosterone were normal, but follicle-stimulating hormone (FSH) was undetectable. Magnetic resonance imaging showed a slightly atrophic pituitary gland (Picture A). Pituitary stimulation tests showed no FSH response to GnRH, whereas the other hormone responses were preserved (Picture B), resulting in a diagnosis of isolated FSH deficiency (IFSHD). His hematospermia was ameliorated with FSH replacement; however, his oligospermia and testis sizes remained unchanged. FSH is essential for spermatogenesis (1), and IFSHD, a rare phenotype of hypogonadism, causes oligospermia. FSHβ mutation induces IFSHD showing undetectable FSH and enhanced LH (2), which is different from our case with normal LH levels and puberty. Hematospermia may trigger the identification of latent reproductive disorders in young men.

The authors state that they have no Conflict of Interest (COI).

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