



Acquired Male Hypogonadotropic Hypogonadism (MHH) in a type 2 Diabetes patient revealing Empty Sella



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INTRODUCTION

Empty sella in male patients is a very rare situation. It could be diagnosis in acquired male hypogonadotropic hypogonadism or hypopituitarism. In type 2 diabetes, the erectile dysfunction (ED) is a common situation. Male Hypogonadotropic hypogonadism (MHH) is an endocrine disorder that could lead to ED.

CASE REPORT

A 55 year-old type 2 diabetes male was referred to our hospital with erectile dysfunction (ED). He has 3 children. His secondary sex characteristics, sexual function and ejaculation were previously normal but for the last 3 years he had ED. His genital stage was Tanner V, and pubic hair stage was Tanner III.

There were no varicoceles. The diabetes was poorly controlled (Hb1Ac = 9%).

His hormonal data were luteinizing hormone (LH) 1.1 mIU/ml (normal: 2-8 mIU/ml), follicle stimulating hormone (FSH) 1.8 mIU/ml (2-12 mIU/ml), testosterone 1.2 ng/ml (3-7 ng/ml), FT4 : 13 pmol/l (10-20 pmol/l).

The rate of PSA was normal. Magnetic resonance imaging of the head revealed slight depression of the diaphragma sellae, indicating an "empty sella" [Fig 1-2-3].

We diagnosed acquired hypogonadotropic-hypogonadism related empty sella.

A replacement androgen therapy was introduced. Twelve months after hormone replacement therapy, the ED wasn't disappear but the quality of life of this patient was better.

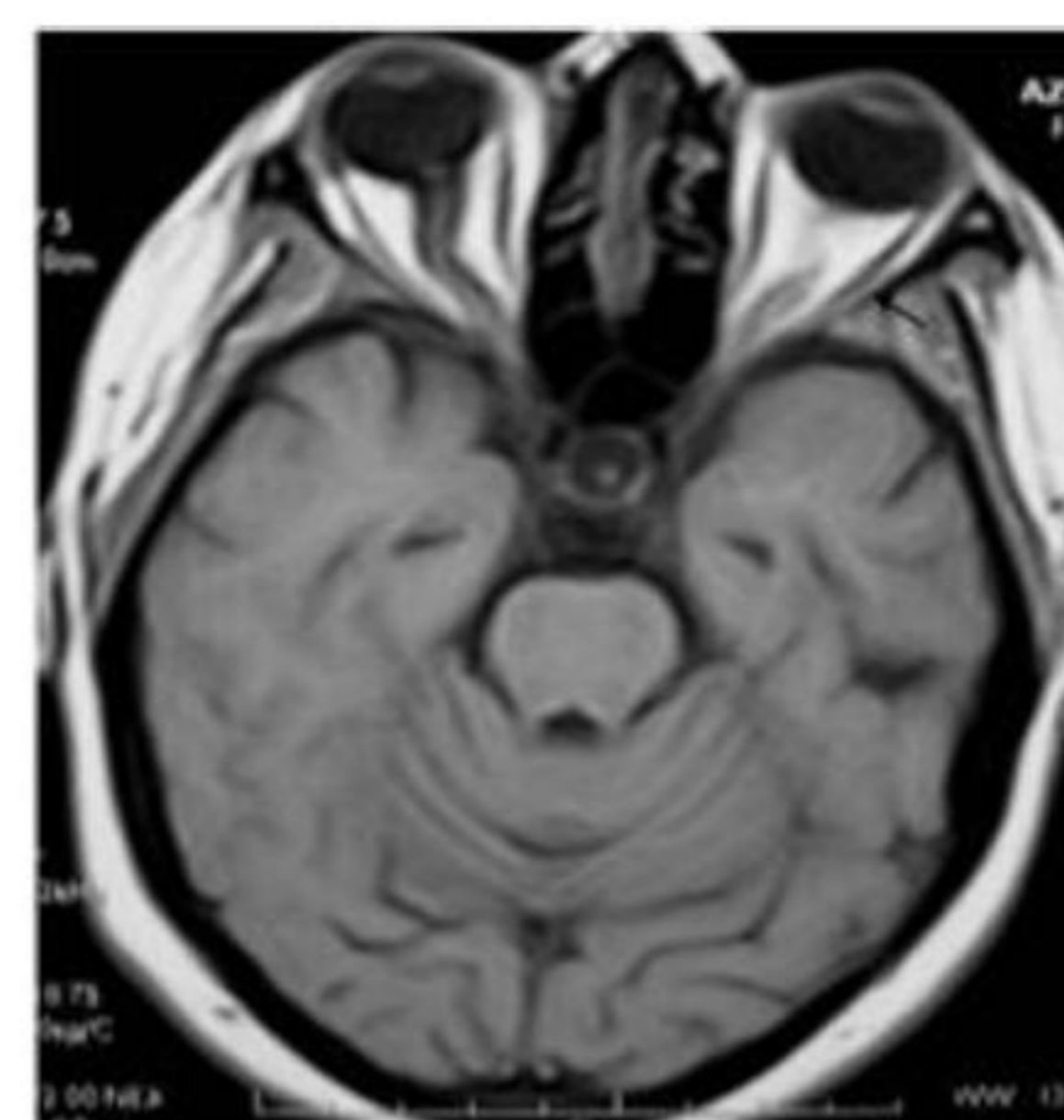


Fig 1



Fig 2

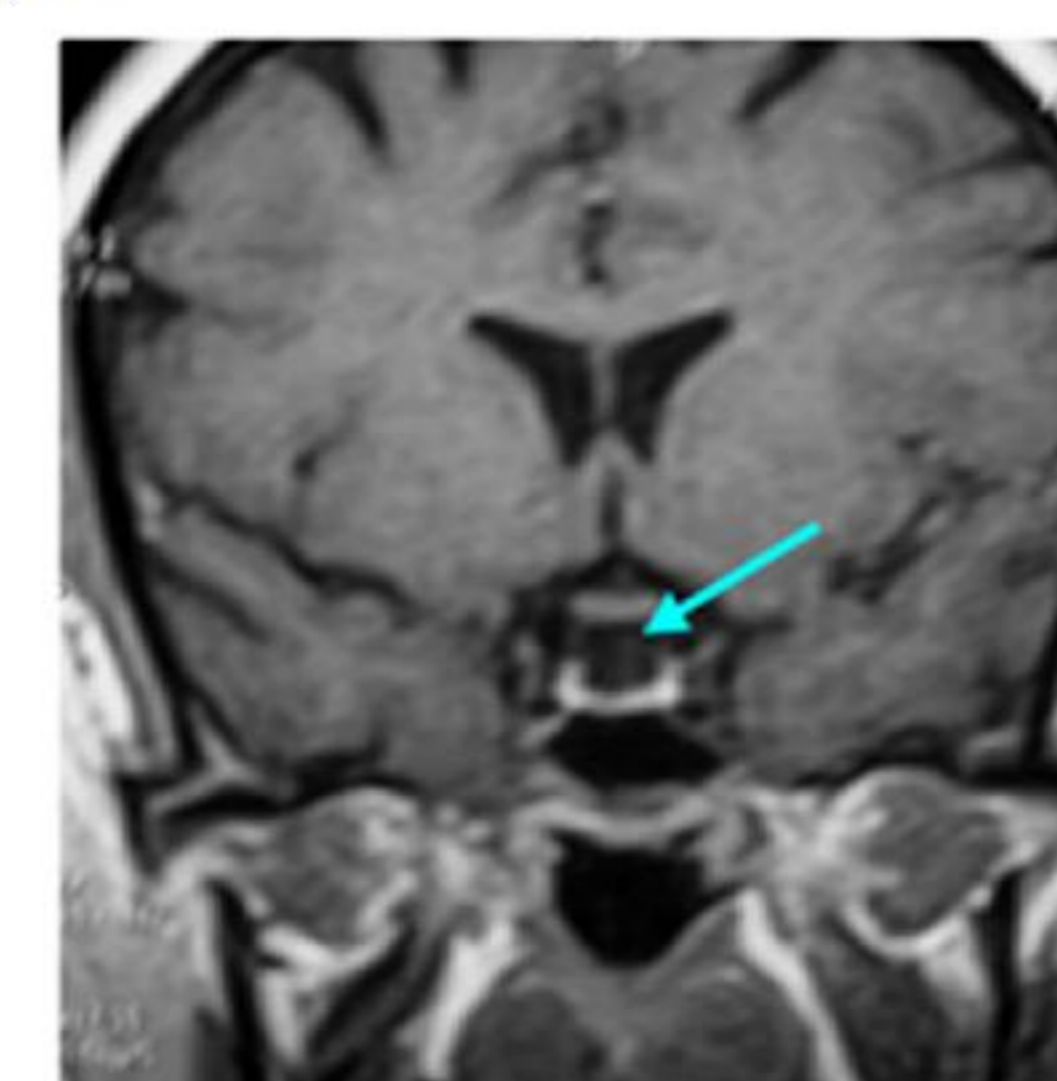


Fig 3

DISCUSSION

- Hypogonadotropic hypogonadism in men is not an uncommon disease and can usually be classified into two categories representing congenital and acquired forms. The incidence of congenital IHH is about 0.025%.
- Acquired hypogonadotropic hypogonadism can be caused by various clinical conditions: pituitary adenomas, brain tumours, inflammatory diseases and traumas may directly disturb the hypothalamus and pituitary gland functions [1].
- Erectile dysfunction is common in type 2 diabetes men poorly controlled. It may reveal endocrine dysfunction such as acquired functional MHH.
- Pituitary MRI is frequently normal. In our case, it reveal empty sella. Micro-vascular mechanism related to type 2 diabetes was incriminated.

CONCLUSION

Adult-onset MHH patients may present symptoms of ED and gynecomastia with isolated deficits in the hypothalamus-pituitary-testis axis. Although the underlying mechanisms are not clear, they might involve autoimmune antibodies specifically targeted to GnRH neurons or gonadotrophs. Gonadotropins should be considered as a clinically significant alternative therapy because spermatogenesis can be restored in most patients with adult-onset hypopituitarism.

In this observation, we report a common situation in type 2 diabetes patient which revealed a rare case of acquired MHH due to empty sella. Pituitary MRI is interesting in acquired MHH and can reveal multiples others endocrine deficiency.

References :

- Jiang-Feng Mao et al. Adult-onset idiopathic hypogonadotropic hypogonadism: possible aetiology, clinical manifestations and management. Asian J Androl. 2010; 12(4): 611-614

