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Pituitary apoplexy presenting as panhypopituitarism**Dinesh Kumar**

Assistant professor, Department of Medicine, Sri Guru Ram Das University of Health Sciences, Sri Amritsar, Punjab

Manavdeep Kaur

2nd year PG resident, Department of Medicine, Sri Guru Ram Das University of Health Sciences, Sri Amritsar, Punjab

Gursimran Kaur

MBBS Final Year, Sri Guru Ram Das University of health and sciences, Sri Amritsar, Punjab

Abstract---Hypopituitarism is defined as deficiency of all anterior pituitary hormone¹. Panhypopituitarism is defined when there is deficiency of both anterior and posterior pituitary hormone. In this case report our 50 year old male diagnosed with pituitary apoplexy (bleeding in rathke's pouch) started on intravenous steroids and later on oral steroids and he started improving clinically.

Keywords---hypopituitarism, rathke's pouch.

Introduction

Panhypopituitarism is a rare disease. It is characterised by the complete or partial deficiency of the hormones secreted by the pituitary gland.¹ There are different causes of panhypopituitarism –such as structural abnormalities, surgical resection, head injuries, pituitary adenoma, rathke's cyst, craniopharyngioma, pituitary metastasis, meningioma, sarcoidosis, hemochromatosis, pituitary apoplexy, pregnancy related(postpartum necrosis), and infective etiology such as tuberculosis, histoplasmosis.²

Case

A 50 year old male businessman by occupation presented with c/o generalised body weakness, polyuria and intermittent headache since 5 months. He also gave history of loss of facial , axillary and pubic hair, diminished libido, reduced physical and mental energy, impaired memory and depression and blurring of vision. On examination patient was thin, lean with sparse facial, axillary and

pubic hair. He was non alcoholic and non smoker. He was investigated thoroughly. He had consistently low serum sodium levels < 118 mmol/l despite being treated for hyponatremia. He passes 5-6 l of urine per day. Urine osmolality was 230 mosmol/l. Water deprivation test done which confirms Central Diabetes insipidus. MRI 2d brain with contrast done which was suggestive of pituitary apoplexy with suprasellar extension along with deviated pituitary stalk and indentation of prechiasmatic segment of left optic nerve and adjacent part of left optic chiasma (fig 1). Perimetry was done which showed false negative results, thus inconclusive. Thyroid profile shows central hypothyroidism. His free and total testosterone levels are markedly reduced 0.05pg/ml and 9.12 ng/dl respectively. IGF –BP3 levels were also decreased 1.7ug/ml with FSH, LH and Prolactin levels were normal. Now patient was given intravenous steroids injection Hydrocortisone 100 mg thrice a day for 7 days and later oral steroids tab fludrocortisone 100mcg once a day and tab acetolazamide 250 mg thrice a day along with tab thyroxine 75mcg empty stomach started and patient started improving with regression of symptoms.

Discussion

Anterior pituitary hormones are prolactin, thyroid stimulating hormone, adrenocorticotrophic hormone (ACTH), growth hormone, gonadotropins hormone such as follicle stimulating hormone (FSH), leutinizing hormone (LH).³ Posterior pituitary hormone are oxytocin, vasopressin. Features of panhypopituitarism depend on the hormones which are lost and extent of deficiency of hormone. In growth hormone deficiency, adult patient had decreased energy, poor concentration. Body composition changes like reduced lean body mass, increased fat mass with selective deposition of intraabdominal visceral fat is common. Hyperlipidemia and hypertension can also be present¹. With deficiency of ACTH there is secondary adrenal insufficiency which is characterised by fatigue, weakness, anorexia and vomiting⁴ In gonadotrophin deficiency females present with diminished ovarian failure lead to oligomenorrhoea, amenorrhoea, breast atrophy, while male has decreased libido, infertility, decreased muscle mass with weakness, osteoporosis, reduced beard and body hair growth.⁵ Thyroid stimulating hormone is low-central hypothyroidism he was having forgetfulness, lethargy⁴. With decrease in vasopressin hormones, patient had polyuria, polydipsia, low urine osmolality.⁶ Our 50 year old male presented with generalised weakness, polyuria and intermittent headache with MRI showing pituitary apoplexy with suprasellar extension. Rathke's cyst was diagnosed. It is a benign small cyst entrapped by squamous epithelium. It may cause compressive symptoms and can cause hypopituitarism.⁷ Our patient was started on corticosteroids 100 mcg once a day, tab thyroxine 75 mcg and tab acetazolamide 250 mg thrice a day. The mechanism of action of steroid is not clear but it is assumed that it has effect on secretion and absorption of cystic fluid⁷. With medical management patient started improving and surgery was not done. As rathke cyst is most commonly managed by the surgery, its early diagnosis is very important and it can be treated with medical management.

Conclusion

Rathke's cyst is a sellar mass leading to compressive symptoms and panhypopituitarism. It can increase in size, with patient having hormonal deficiencies thus need to be diagnosed early and can be managed medically instead of surgery. Rathke's cyst is an important cause of hypopituitarism to be kept in consideration while treating patient of panhypopituitarism.

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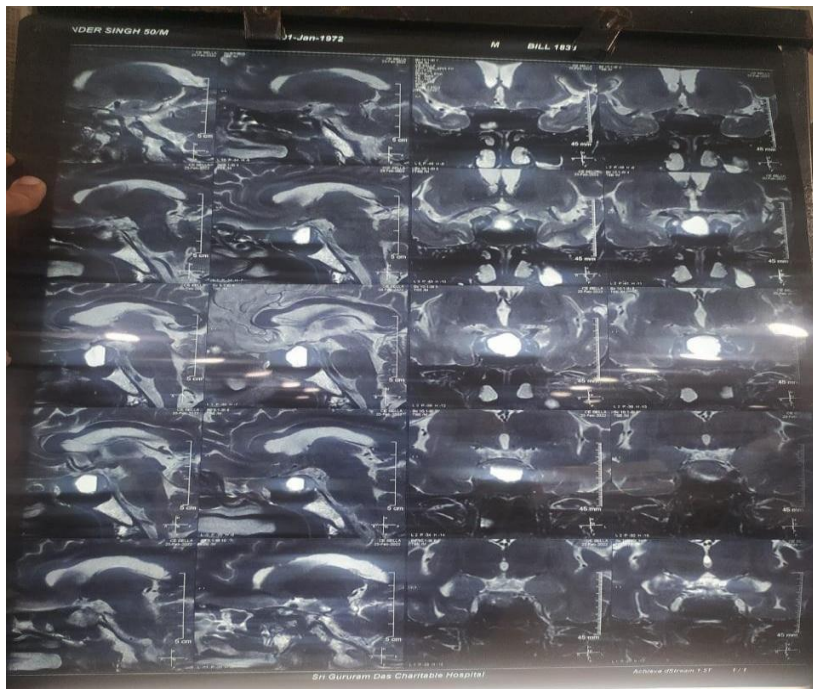


Figure 1. T2 weighted sagittal section of mri brain showing pituitary apoplexy with suprasellar extension