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Congenital hypopituitarism and psychosis symptoms: a case report.

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INTRODUCTION

Psychosis is one of many possible psychiatric disturbances associated with endocrinologic abnormalities.

The pathophysiologic presentation of hypopituitarism is well documented in literature but there appears to be a paucity of data on its possible association with neuropsychiatric manifestations (1).

Case Presentation

We reported a case of a 48 year-old female patient who was referred to our department of psychiatry for psychotic symptoms.

The patient was followed for congenital hypopituitarism with somatotropic, gonadotropic, and thyrotropic deficiencies. Genetics studies revealed mutation R73C in PROP1 gene. MRI of the hypothalamic pituitary region revealed an hyperplasia.

The patient interrupted endocrinologic follow-up 11 years ago but she kept on medical treatment with only hydrocortisone.

She was admitted to the psychiatry department because of behavioral disorder.

She presented auditory hallucinations with delusional interpretation and persecution delirium which appeared since 18 months.

Basic studies revealed anemia (10.2g/dl) and thyrotropic insufficiency (FT4= 6.39 pmol/l ; TSH= 1.77 uUI/ml).

Initially, neuroleptic treatment with haloperidol did not improve psychotic symptoms until we corrected biological disturbances especially thyrotropic insufficiency with thyroxin.

DISCUSSION

- Our patient shares clinical and therapeutic features with a few similar cases (2- 5). In fact, the number of cases in the literature linking psychosis to hypopituitarism is limited (6).
- Previous cases were psychotic presentations of hypopituitarism from various etiologies including Sheehan's syndrome, Traumatic Brain Injury, macroadenoma (3), after glucocorticoid therapy and pituitary resection(4). Congenital hypopituitarism due to mutation in PROP1 gene, such as the case of our patient, was also reported (5).
- Clinical features included somatic and psychiatric symptoms. Delirium and persecutory ideas were the most reported psychotic symptoms (2).
- Mechanisms for the pathogenesis of psychosis in hypopituitarism may be a result of interactions between pituitary hormones and the dominant neurotransmitters: serotonin, dopamine, GABA, and glutamate. Complex metabolic and electrolyte changes in the central nervous system resulting from a combination of hypothyroidism, hypoglycemia, and low cortisol were also described (6,7). Pariante et al. (8) reported a 10% larger pituitary volume in patients with first episode psychosis. This result was in line with our case. Indeed, MRI in our case revealed hyperplasia of the hypothalamic pituitary region.
- Combined somatic and neuroleptic treatment considerably improved the physical and psychic status of our patient. In fact, this therapeutic strategy was necessary to obtain remission in previous cases (3-5). However, neuroleptic use may lead to complications (2).

Conclusion

The causal relationship between hypopituitarism and psychosis still not clear. Prospective follow-up of patients with pituitary dysfunction would help to more understand the link between the two pathologies.

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