

Management of Risperidone induced Hyperprolactinemia in an Adolescent with Severe Autism

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Background

- Risperidone is a second-generation antipsychotic medication, which inhibits dopamine and serotonin receptors.
- Around half of children and adolescents treated with risperidone develop hyperprolactinemia¹.
- Chronic hyperprolactinemia can lead to osteoporosis, cardiovascular disease and delayed growth and puberty.
- Minimal available guidance on the monitoring of antipsychotic induced hyperprolactinemia in children.
- We describe the challenges in the management of a teenage girl with severe autism who had significant problems with symptomatic hyperprolactinemia secondary to risperidone therapy.

Case

- Fifteen year old girl with severe autism, on Risperidone(0.5 mg BD) for 2 years for severe behavioural difficulties with outbursts of aggression.
- Referred to Endocrinology due to excessive weight gain, galactorrhea and secondary amenorrhoea.
- Normal thyroid function and a very high prolactin(PRL) concentration of 3053mU/l (normal: 0-500).
- Macroprolactin : 8%.
- MRI pituitary-normal.
- Commenced on Cabergoline 125 microgram three times/week
- Gradual resolution of the symptoms with fall in PRL concentration to 958 mU/l over a period of 12 months.
- Risperidone was subsequently weaned and stopped.
- Frequent blood sampling to monitor prolactin concentrations was extremely challenging due to severe behavioural difficulties and was only possible when patient was under General Anaesthesia(GA) for a procedure.

Key Challenges

- ❖ Frequency of blood sampling
- ❖ Monitoring after stopping treatment
 - ❖ Risk associated with GA
- ❖ Behavioural issues-Nipple stimulation causing hyperprolactinemia

Current Practice

- ❖ Baseline MRI and pituitary bloods under GA
 - ❖ If PRL is elevated±symptoms, D/W Psychiatrist regarding prolactin sparing antipsychotic
- ❖ Cabergoline –if patient is symptomatic

Conclusion

- Cabergoline can help ameliorate the symptomatic hyperprolactinaemia secondary to risperidone therapy in children.
- Monitoring of serum PRL concentration is a challenge in this group of patients due to the underlying nature of the condition.

- ❖ Monitoring PRL levels is extremely difficult
 - ❖ Repeated heavy sedation/GA is not a safe/ethical option
 - ❖ Joint Endocrinology & Psychiatry consensus/guidelines needed for effective management.

Reference

¹Rosenbloom AL.Hyperprolactinemia with antipsychotic drugs in children and adolescents. Int J Pediatr Endocrinol. 2010;2010. pii: 159402.

