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Pituitary adenoma in monozygotic twins: case report

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Pituitary tumors are rare in childhood and adolescence, with a reported prevalence of up to 1 per million children. Only 2 - 6% of surgically treated pituitary tumors occur in children. Although pituitary tumors in children are almost never malignant and hormonal secretion is rare, these tumors may result in significant morbidity. In children, more frequently than in adults, pituitary tumors may be a manifestation of genetic conditions such as multiple endocrine neoplasia type 1 (MEN 1), Carney complex, familial isolated pituitary adenoma (FIPA), and McCune-Albright syndrome.

14 year old monozygotic twin sisters with the diagnose of Cri du Chat syndrome had galactorrhea before menarche. Pituitary adenomas were noticed in MRI with the size of 9mm and 7 mm. Prolactin levels were 120 µg/L and 70 µg/L respectively. Because of mental retardation, patients had limited cooperation, so optimum visual examination could not been made. Surgery was offered both patients.

Although pituitary adenomas generally exist as a component of genetic syndromes in twins, they are not a component of Cri du Chat syndrome. Surgery is the first choice in treatment of pituitary adenomas in pediatric age, except prolactinomas. Treatment of prolactinomas is controversial in pediatric age. Prolactinomas are generally diagnosed after puberty and medical treatment reduces both prolactin levels and tumor size. On the other hand medical treatment does not keep a cure for the disease. Use of dopamine agonist drugs for a long term, has many potential side effects and is not cost effective. In our case, it was not possible to evaluate visual symptoms clearly in the follow up, because of patients' mental retardation. So, we decided to prefer surgery as a first choice of treatment.