OCCURRENCE OF LIVER FAILURE IN POST-SURGERY HYPOPITUITARIC PATIENTS

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INTRODUCTION

Multiple pituitary hormone deficit and hypothalamic obesity are common complications after childhood brain tumors surgery.
Despite adequate replacement hormone therapy, obesity develops equally, but liver failure is not usually described.

OBJECTIVES

We described four cases of cirrhosis, occurred in panhypopituitaric children previously undergone brain tumor surgery.

METHODS

We studied four subjects referred to our Unit at 19, 23, 23 and 31 years old.

They had undergone surgery for brain tumors involving the peri-hypothalamic area when they were nursing or as youths. One of these patients had a pilocytic astrocytoma, two had a craniopharyngioma, and the last a third ventricle germinoma.

All patients developed panhypopituitarism, but only two had taken adequate hormone replacement therapies since brain damage. In the other two subjects adequate hormonal replacement therapy was started when they came to our observation.

PATIENTS	1	2	3	4
Sex	M	F	F	F
Type of cranial tumor	Astrocytoma	Cranio-pharyngioma	Germinoma	Cranio-pharyngioma
Number of chirurgical operations	1	4	1	1
Age of brain surgery	9 months	6, 7, 11 and 17 years	9 years	20 years
Radiotherapy (RT)/ chemotherapy (CT)	none	none	RT+CT	none
Age starting adequate hormone replacement therapy	19 years	6 years	9 years	31 years
Age of steatosis onset	-	21 years	16 years	-
Age of cirrhosis onset	19 years	23 years	18 years	31 years
Age of arrival to our Operative Unit	19 years	23 years	23 years	31 years
BMI at arrival to our Operative Unit	39.2 kg/m^2	46.6 kg/m^2	27.1 kg/m^2	45.8 kg/m^2

RESULTS

After brain surgery, all patients developed obesity (BMI 39.2-46.6 Kg/m2) or overweight (BMI: 27.1).
The two patients immediately adequately treated for hypopituitarism after surgery, developed a fatty liver when they were 16 and 21 years old. In both cases, steatosis progressively evolved into cirrhosis after two years. One of these patients also developed a hepatic-pulmonary syndrome and underwent liver transplant at the age of 25 years.
In the two patients with inadequate or absent hormone replacement therapy, a diagnosis of cirrhosis was concomitant with the first appropriate endocrinological care during hospitalization for liver failure.

CONCLUSIONS

The analysis of these four cases shows that pediatric peri-hypothalamic surgery may be associated with very severe hepatic clinical features, induced by mechanisms not yet known, regardless of hormone replacement therapy. It is therefore very important to start a careful follow-up of these patients from childhood for early detection of possible liver failure.

References

- Aye Nyunt et al. (2005) ***Adult cirrhosis due to untreated congenital hypopituitarism***. Journal of the Royal Society of Medicine; 98:316–317.
- Meureen M. et al. (2005) ***Rapid Recurrence of Nonalcoholic Fatty Liver Disease After Transplantation in a Child With Hypopituitarism and Hepatopulmonary Syndrome***. Liver Transplation; 11:108–110.
- Fujio A. et al. (2015) ***Long-term survival with growth hormone replacement after liver transplantation of pediatric nonalcoholic steatohepatitis complicating acquired hypopituitarism***. The Tohoku Journal of Experimental Medicine; 235(1):61-7.
- Nakajima K.et al. (2005) ***Pediatric nonalcoholic steatohepatitis associated with hupopituitarism***. Journal of Gastroenterology; 40(3):312-5.

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Clinical Cases Pituitary/Adrenal

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