GIANT PITUITARY TUMORS SECRETING GROWTH HORMONE IN CHILDREN AND ADOLESCENTS

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INTRODUCTION

Pituitary tumors secreting growth hormone (GH) are very rare in children and adolescents (≤20 years old). Giant ones (maximal diameter≥4cm) are even rarer. We aimed to analyze their frequency and their complications in Algerian population.

MATERIAL AND METHODS

It is a retrospective and multicentre study over a long period of time (1980-2013) which aimed to record giant pituitary tumors secreting GH in order to analyze their characteristics.

RESULTS

During the study period (33years) we found 31 somatotroph adenomas in children and adolescents or in older subjects with lack of pubertal development. Among that tumors, 12 were giant=**38.7%.** The giant tumors had mixed secretion (GH+PRL) in 3 cases. **Sexual repartition:**10 males/2 females.

Their characteristics and complications are as follows:

GH giant tumors characteritics	
Age at diagnosis	22.4 years old (13-30).
Clinical features	▪ Gigantism=8/12=66.6% ▪ Acromegaly=4/12=34.4%
Mean tumor diameter	60.5mm (40-100).
Mean plasma GH concentration	570ng/ml (30-1430).

Giant Pituitary tumors Complications	Number /12	Percentages
Visual troubles	12	100%
Pituitary insufficiency (≥2 deficits)	04	33.3%
Hydrocephalus	08	66.6%
Frontal syndrome	03	25%
Epilepsy	01	8.3%
Meningitis	0	0%
Posterior pituitary deficit	0	0%

DISCUSSION AND CONCLUSION

In our population giant tumors secreting GH are frequent and diagnosed late even in those with gigantism which explains the high frequency of severe and life threatening neurological complications.