PEDIATRIC CENTRAL NERVOUS SYSTEM GERM CELL TUMORS: ENDOCRINE OUTCOME

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BACKGROUND

In pediatric central nervous system tumors, germ cell neoplasms need to be properly diagnosed because treatment is nonsurgical. They usually produce endocrine disorders helping an early diagnosis.

OBJECTIVES

- To describe presenting symptoms in pediatric central nervous system germ cell tumors and endocrine abnormalities on follow-up.

PATIENTS AND METHODS

We reviewed the records of children and adolescents aged under fourteen who were followed in our unit presenting a central nervous system germ cell tumor.

All cases were diagnosed by MRI:
6 patients were biopsied
5 secreted chorionic gonadotropin

All were treated with chemo and radiotherapy.

RESULTS

11 patients (10 female)
Age at diagnosis 9.4 ± 1.7 years (range 7.0-12.0).
Follow-up period 8.5 ± 3.0 years.

Reasons for consultation

Endocrine disorders present at diagnosis of tumor: 9 cases
As reason for consultation: 3 cases
Not diagnosed in 8 patients that consultate for neuro-ophthalmic signs/symptoms: other 6 !!!!

Duration of symptoms prior to diagnosis of tumor

Endocrine symptoms 25.0 ± 26.2 months !!!
Neuro-ophthalmic symptoms 2.0 ± 2.1 months

Prevalence of endocrine abnormalities.

CONCLUSIONS

The management of pediatric central nervous system germ cell tumors involves a multidisciplinary effort.

Almost all those of hypothalamic origin present endocrine manifestations at diagnosis.

Endocrine disorders usually occurred long time before neurological and ophthalmological symptoms did, so identifying them may help to earlier diagnosis. Central diabetes insipidus is often unknown in primary care.

Hormonal evaluation is mandatory as well on follow-up.

Magnetic Resonance Imaging of one case of hypothalamic location