

PEDIATRIC CENTRAL NERVOUS SYSTEM GERM CELL TUMORS: ENDOCRINE OUTCOME

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Disclosure Statement : all authors declare no potential conflict of interest

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.

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.

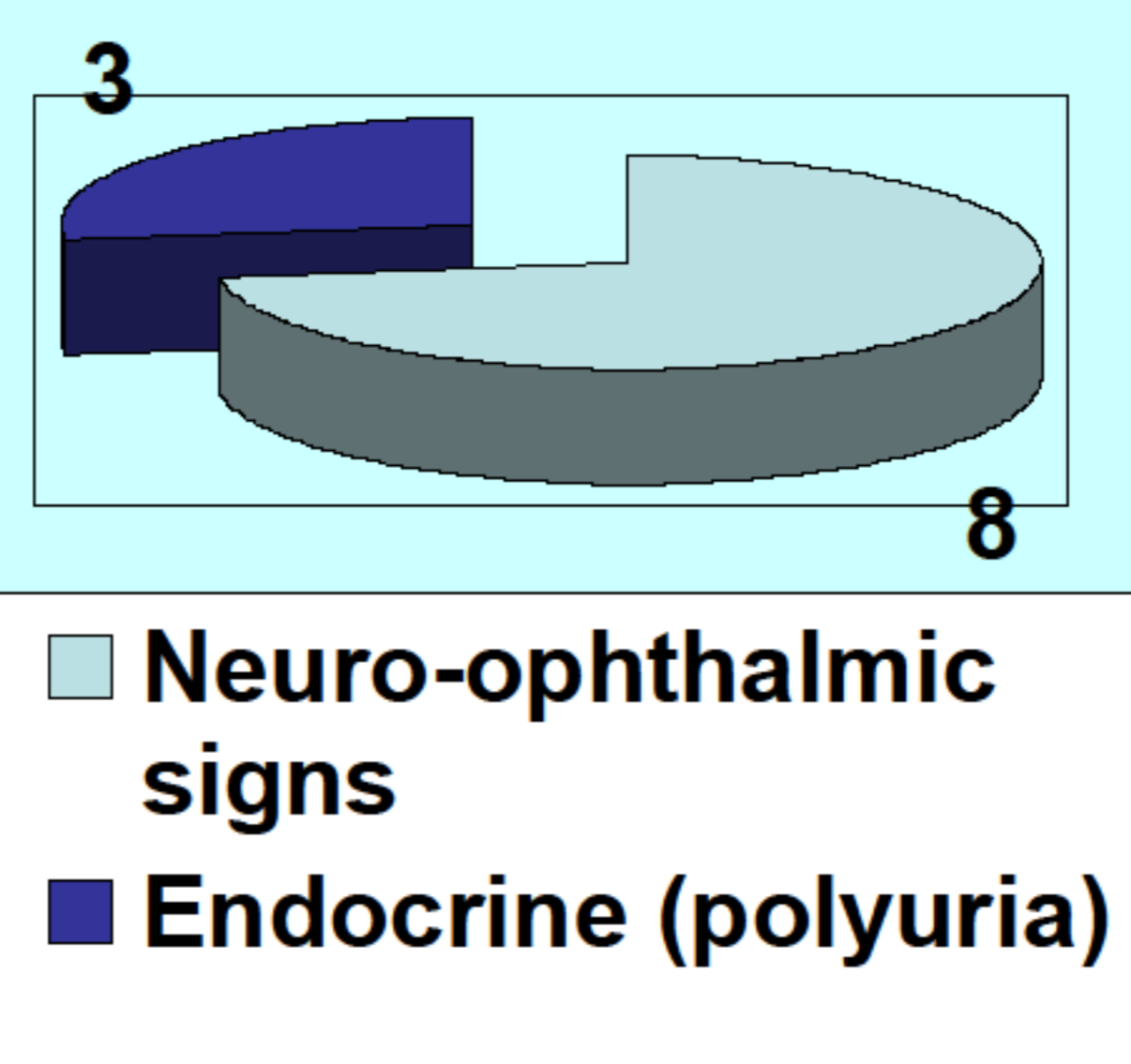
RESULTS

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

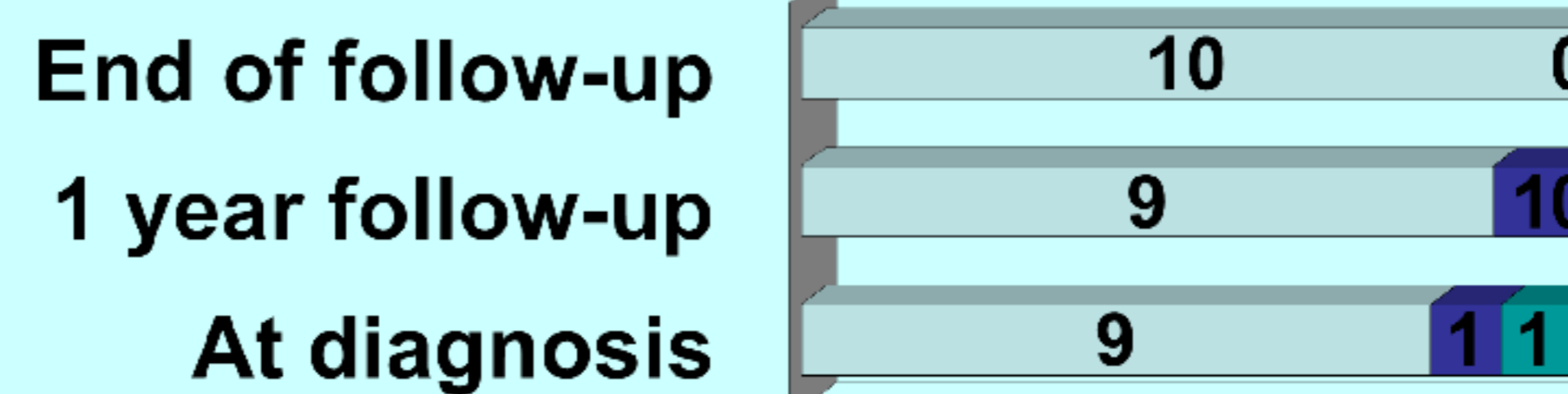


Duration of symptoms prior to diagnosis of tumor

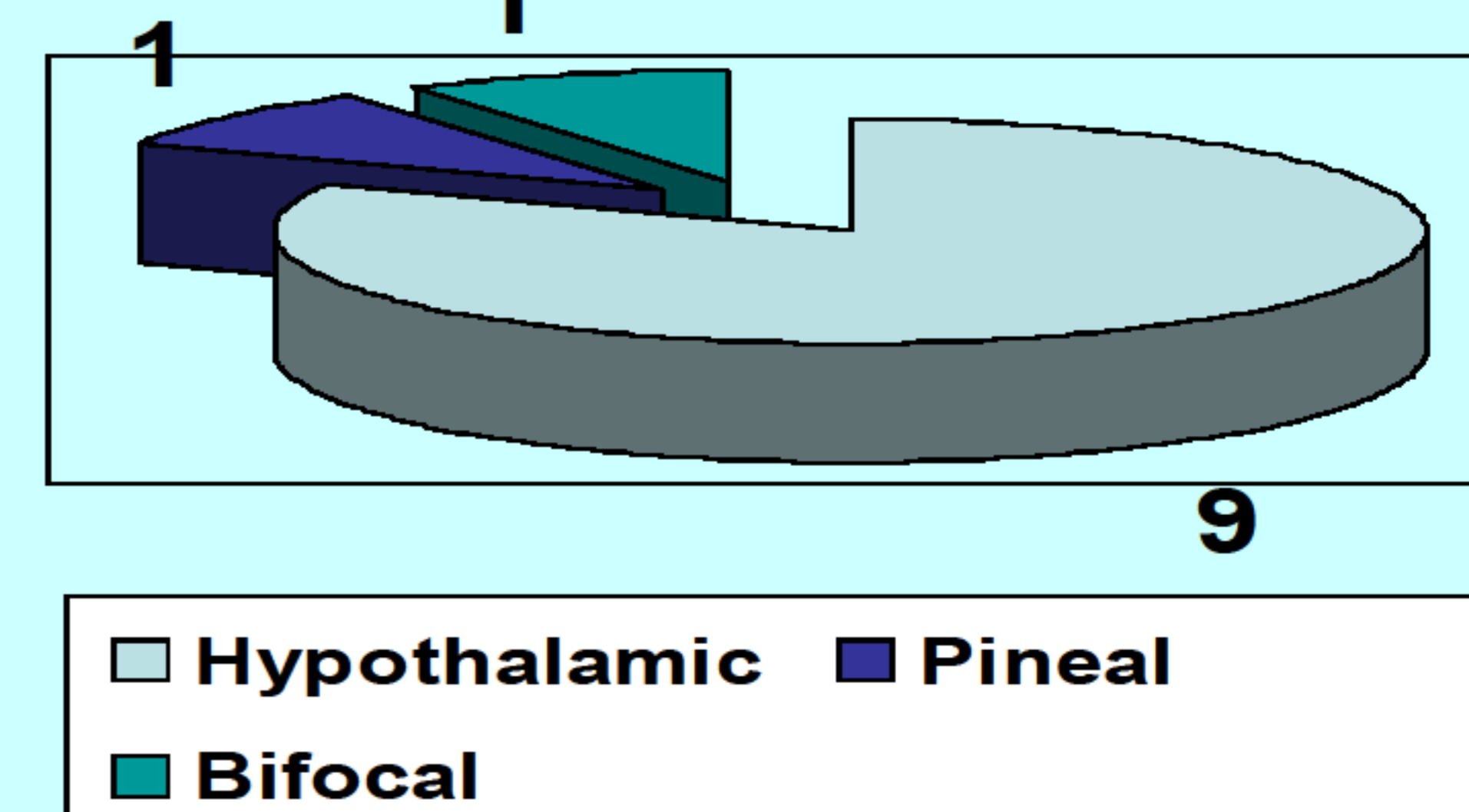
Endocrine symptoms 25.0 ± 26.2 months !!!
 Neuro-ophthalmic symptoms 2.0 ± 2.1 months

Prevalence of endocrine abnormalities.

Multiple deficits Pituitary only deficit Precocious puberty



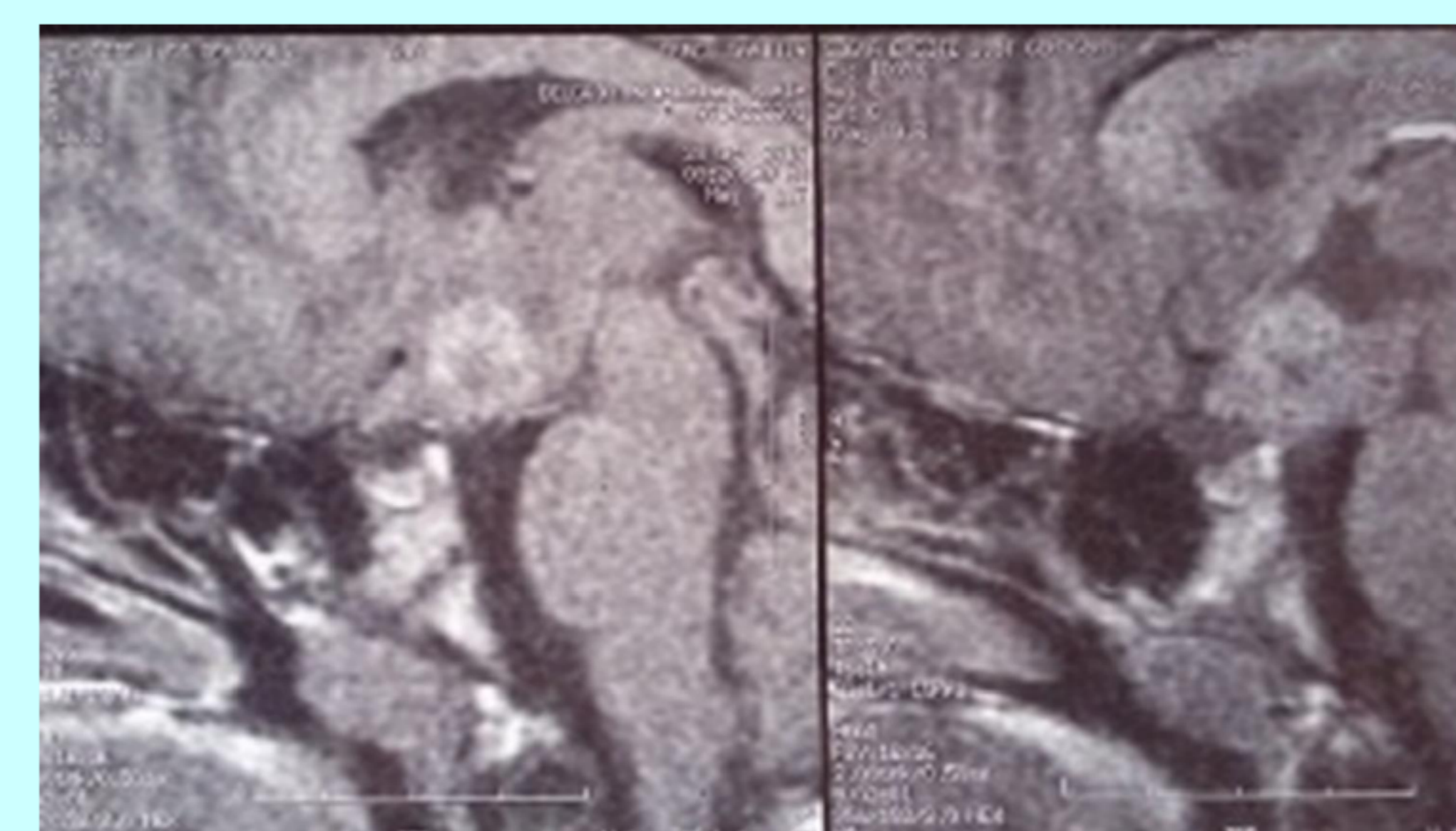
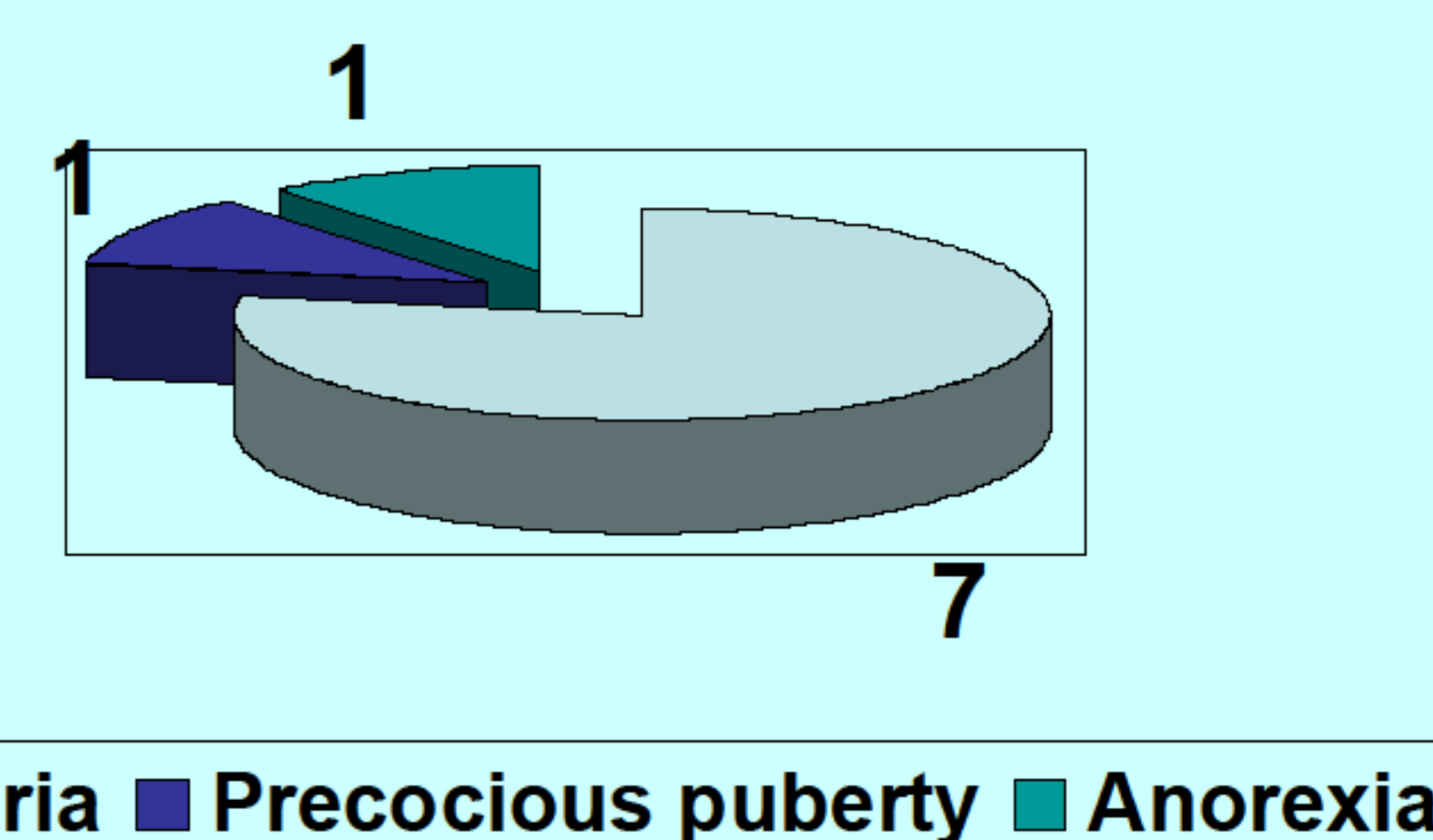
Location



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 !!!



Magnetic Resonance Imaging of one case of hypothalamic location