A retrospective and anatomopathological study of 40 orbital tumors

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Abstract

In casuistry of the neurosurgery clinic in Iasi I recorded 40 observations of orbital tumors over a period of 20 years. The anatomopathological analysis of our observations has shown us a great variety of intraorbital processes occurring especially in small children with optic nerve glioma which lead to malignant tumors with age.

Keywords: orbital tumor, optic nerve glioma.

The information from the anatomopathological study revealed that optic nerve gliomas are age specific for children. Our study comprised 8 cases of gliomas in children (61.5%). This type of tumor is specific to children aged 12 – approximately 75% – proportionally more common in young children. Our statistics revealed 6 cases in children under 10 years old and 2 cases in children over 10 years old – 11 and 14 years respectively.

TABLE I

The anatomopathological types of 40 observations

Anatomopathological type	Number
Optic nerve glioma	6
Optic chiasm glioma	4
Meningioma	1
Reticulosarcoma	2
Fibrosarcoma	2
Lacrimal gland, mixed tumor	1
Neurinoma	2
Epidermoid cyst	2
Angiofibroneuroma, AV angioma	3
Multiforme sarcoma	4
Melanoma	3
Intraorbital bone neoformations	4
Other intraorbital tumors	3

TABLE II

The anatomopathological types of 13 observations of tumors in children out of the 40 observations

Anatomopathological type	Number
Meningioma	1
Optic chiasm glioma	3
Optic nerve glioma	5
Angiofibroneuroma	1
Reticulosarcoma	1
Retinoblastoma	1
Fibrosarcoma	1

Discussion and conclusion

The diagnosis of an optic nerve glioma should lead to a search for the stigmata of von Recklinghausen's neurofibromatosis, since this type of tumor is frequently associated with optic nerve glioma. In our study I found a case of optic nerve glioma associated with von Recklinghausen neurofibroma.

Meningioma is rare in children. There was only one case of optic nerve meningioma which occurred in a 13-year

old girl.

In the study of 13 cases of orbital tumors, reticulosarcoma occurred only in one child. The evolution of children with this type of tumor is totally different from the evolution of adults.

The anatomopathological and clinical study of 13 orbital tumors in children gave the following age group distribution:

0 – 2 years old, 3 cases
2 – 5 years old, 4 cases
5 – 10 years old, 3 cases
10 – 16 years old, 3 cases

As it can be seen from our statistics and according to Ingalls' own statistic, the first decade of life gave the highest number of orbital tumors.

In the study of 40 cases, in 24 cases the most common location is intraorbitary, in 6 cases the optic nerve, in 4 cases the optic chiasm, in 5 cases retrobular, and in 1 case the lacrimal gland.

As a conclusion, the anatomopathological analysis of our observations has shown us a great variety of intraorbital processes occurring especially in small children with optic nerve glioma which lead to malignant tumors with age.

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