Intraventricular meningioma epidemiology

- Lessons learned in 20 years of endoscopic endonasal surgery for pterygopalatine and infratemporal fossae lesions: analysis of a patient series and systematic review of literature
- Causes of death among patients with primary malignant brain tumors in the US from 2000 to 2021
- Pan-cancer copy number analysis identifies optimized size thresholds and co-occurrence models for individualized risk stratification
- Years of life lost due to central nervous system tumor subtypes in the United States
- Oral contraceptives with progestogens desogestrel or levonorgestrel and risk of intracranial meningioma: national case-control study
- Antiseizure medication in patients with meningioma: a retrospective cohort study on the long-term impact on depression, anxiety and neurocognitive functioning
- Body Mass Index, Physical Activity, and Subsequent Neoplasm Risk Among Childhood Cancer Survivors
- Contributions of cancer treatment and genetic predisposition to risk of subsequent neoplasms in long-term survivors of childhood cancer: a report from the St Jude Lifetime Cohort and the Childhood Cancer Survivor Study

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Primary intraventricular meningiomas (IVM) are rare, corresponding to 0.5 to 5% of all intracranial meningiomas.

Intraventricular meningiomas are most often seen in the lateral ventricles of adults, more often on the left than on the right [1)]

Pediatric intraventricular meningioma tend to have a male preponderance in contrast to adults who have a preference for females [2)].

Some studies have reported that they are more common on the left side [3) 4)].

A Medline search up to March 2018 using “intraventricular meningioma” returned 98 papers. As a first selection step, we adopted the following inclusion criteria: series and case reports about IVMs, as well as papers written in other languages, but abstracts written in English were evaluated. Six hundred eighty-one tumors were evaluated from 98 papers. The majority of the tumors were located in the lateral ventricles (602-88.4%), fourth ventricle (59-8.7%), and third ventricle (20-2.9%)

The most common location is the trigone (atrium) of the lateral ventricle. Due to the fluid cavity location and their slow growth they can become large tumors before proper diagnosis.

Intraventricular meningiomas typically present between 30 and 60 years of age. The mean age at diagnosis is 42.2 +/- 8.2 years old.

Approximately 90% of them are WHO grade I

They have a female predilection with 1.47 female/1.0 male ratio, lower than dural-based extra-axial meningiomas [5].

1)
McDermott MW. Intraventricular meningiomas. Neurosurg Clin N Am. 2003 Oct;14(4):559-69. doi: 10.1016/s1042-3680(03)00055-x. PMID: 15024801.
2)
Dash C, Pasricha R, Gurjar H, Singh PK, Sharma BS. Pediatric intraventricular meningioma: A series of six cases. J Pediatr Neurosci. 2016 Jul-Sep;11(3):193-196. doi: 10.4103/1817-1745.193356. PMID: 27857785; PMCID: PMC5108119.
3)
Criscuolo GR, Symon L. Intraventricular meningioma. A review of 10 cases of the National Hospital, Queen Square (1974-1985) with reference to the literature. Acta Neurochir (Wien). 1986;83(3-4):83-91. doi: 10.1007/BF01402383. PMID: 3492867.
4)
Fornari M, Savoiardo M, Morello G, Solero CL. Meningiomas of the lateral ventricles. Neuroradiological and surgical considerations in 18 cases. J Neurosurg. 1981 Jan;54(1):64-74. doi: 10.3171/jns.1981.54.1.0064. PMID: 7463122.
5)
Pereira BJA, de Almeida AN, Paiva WS, de Aguiar PHP, Teixeira MJ, Marie SKN. Natural history of intraventricular meningiomas: systematic review. Neurosurg Rev. 2020 Apr;43(2):513-523. doi: 10.1007/s10143-018-1019-0. Epub 2018 Aug 15. PMID: 30112665.