Angiomatous Meningioma

Ravi M. Swami, MD
Department of Pathology
Manipal Teaching Hospital
Pokhara, Nepal

Arnav Ghosh, MD
Department of Pathology
Manipal Teaching Hospital
Pokhara, Nepal

Seema Verma-Pradhan, MD
Department of Pathology
Manipal Teaching Hospital
Pokhara, Nepal

Address for Correspondence:
Seema Verma-Pradhan, MD
Department of Pathology
Manipal Teaching Hospital
Pokhara, Nepal
Email: sshilpak2001@yahoo.com

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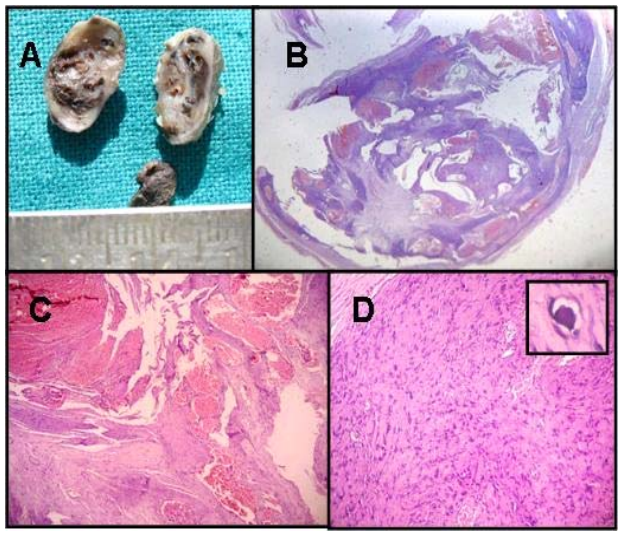

Figure 1. . A – Gross photograph . B – Microscopy , whole mount view H & E, C - Microscopy , Many dialated and congested blood vessels seen with meningothelial cells in between . H & E stain (10X). D – Microscopy , Whorling pattern of meningothelial cells (40X) with psammomatous calcification [inset] H & E stain .

A 45 year male patient was operated elsewhere for extracranial extension of parieto-occipital mass and the tissue was received in our department for histopathological evaluation. No further medical history was available for us to review.

Naked eye examination of the specimen showed a single bit of nodular tissue measuring 2.5 x 1.8 x 1 centimeters in dimension. On cut section, a well circumscribed mass with many bluish colored blood filled spaces of varying sizes was seen. No necrosis was noted **(Fig 1 A).** Under scanner view , microscopy showed ectatic and congested vascular spaces of varying sizes composing more than 50% of the tumor area **(Fig 1 B)** . Under low power tumor showed both vascular and meningothelial component **(Fig 1 C)** . Under high power , elongated menigothelial cells are seen arranged in whorling pattern in a neurofibrillary and hyalinized background **(Fig 1 D)**. The majority of the vessels were large and some showed thickened and hyalinised wall. Focal psammomatous calcification was also noted **(Fig 1 D inset)** . No cytological atypia , mitosis or necrosis were seen. We reported it as angiomatous meningioma, a rare subtype of meningioma.[1] detail lerature review shos that this is a first case report of angiomatous meningioma from Nepal.

Meningiomas are defined as a generally slow growing benign tumors attached to the duramater composed of neoplastic meningothelial cells.[3] The WHO Grade I meningiomas includes the most common types (i.e., fibrous , transitional , meningothelial) and also psammomatous , angiomatous , microcystic , secretory , lymphoplasmacytic rich and metaplastic.[3] As angiomatous meningiomas are grouped under Grade I tumors , its diagnosis may have prognostic implication.[1] This entity is diagnosed on the basis of numerous blood vessels of various sizes exceeding 50% of the total tumor area in a background of typical meningioma.[1] In the first study of a large series , Hasselblatt ,et al., studied 38 cases of angiomatous meningioma (2.1 %) out of a total of 1809 meningiomas of all types . Histological signs of atypia or anaplasia are not observed in any of the cases which fits with the WHO grade I criteria.[2] In the above study of 38 cases , commonest location was in the convexities (42 %) followed by falx (34 %). In our case the lesion was in the temperoparietal region. Hasselblat et al also subdivided this type into macrovascular (diameter of >50% of all vessels are > 30 µm) and microvascular subtype (diameter of >50% of all vessels are < 30 µm) which however did not show any clinical implication . According to the criteria , our case matches with macrovascular subtype . Differential diagnosis include vascular malformations , capillary hemangioblastoma and hemangipericytoma .

References

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