Journal of Clinical Neuroscience 78 (2020) 444–445

Contents lists available at ScienceDirect

Journal of Clinical Neuroscience

journal homepage: www.elsevier.com/locate/jocn

Images

Progressive facial numbness in a patient with multiple enhancing dural based tumours: Answer

Rotem Hershkovitch [a,*], Carlos Candanedo [a], Yakov Felling [b], Andrew H. Kaye [a,c], Samuel Moscovici [a]

[a] Department of Neurosurgery, Hadassah-Hebrew University Medical Center, Jerusalem, Israel
[b] Department of Pathology, Hadassah-Hebrew University Medical Center, Jerusalem, Israel
[c] Department of Surgery, The University of Melbourne, Australia

ARTICLE INFO

Keywords:
Neurosarcoidosis
Meningioma
Hemifacial paresthesia

ABSTRACT

Sarcoidosis is uncommon multiple organ granulomatous disease of unknown etiology. Neurosarcoidosis occurs in about 5% of cases and most frequently follows systemic disease. We present a case of 52-years-old woman with a progressive hemifacial paresthesia and multiple enhancing dural based lesions. Resection of the right frontal mass allowed for the diagnosis to be made. The patient had no other features of sarcoidosis. Therefore, the diagnosis of neurosarcoidosis, especially when unaccompanied by systemic features can be challenging but should be considered in the differential diagnosis of multiple enhancing dural based tumours.

1. Answer

4. Granulomatous disease (Neurosarcoidosis)

2. Discussion

A craniotomy was performed to remove the right frontal intracranial mass. This lesion was chosen due to its superficial location and the need for a histological diagnosis to guide treatment. The mass was attached to the dura with a spread to the arachnoid in the surrounding area. The mass was firm and extended to the falx. The tumor was resected macroscopically, except for a small residual which was left in the sagittal sinus. During the post-operative hospitalization, the patient had seizures which were treated successfully with Levetriacetem. The pathology reported of granulomatous process consistent with sarcoidosis (neurosarcoidosis, Fig. 2). Following the pathology results, the patient was placed on corticosteroid treatment (Dexamethasone starting at 6 mg 3 times per day). On her first follow up appointment, 2 weeks after her discharge, the facial numbness was noted to be improving.

Sarcoidosis is uncommon multiple organ granulomatous disease of unknown etiology. It is most frequently diagnosed in women between the ages of 20–40 years [2]. A nervous system involvement occurs in about 5% of cases [1] and most frequently follows systemic disease. Seldom will a neurological disease develop without any other organ presentation at time of diagnosis, [1–4] and "isolated" neurosarcoidosis exists in less than 1% of cases [3]. Cranial nerve neuropathy is the most common appearance, with the facial nerve most frequently affected [2]. However, other neurological manifestation ranges from leptomeningeal involvement, brain parenchymal disease, endocrine dysfunction, and spinal cord disease [4].

Intracranial sarcoid can occur as solitary or multiple nodules and can be observed at any location in the brain [4]. As such the diagnosis of neurosarcoidosis, especially when unaccompanied by systemic features can be challenging but should be considered in the differential diagnosis of multiple enhancing dural based tumours.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

DOI of original question: https://doi.org/10.1016/j.jocn.2020.03.020
* Corresponding author at: Department of Neurosurgery, Hadassah-Hebrew University Medical Center, P.O. Box 12000, Jerusalem 91120, Israel.
E-mail addresses: rotem.hers@gmail.com (R. Hershkovitch), fellig@hadassah.org.il (Y. Felling), a.kaye@unimelb.edu.au (A.H. Kaye), samuelm@hadassah.org.il (S. Moscovici).

https://doi.org/10.1016/j.jocn.2020.07.035
0967-5868/

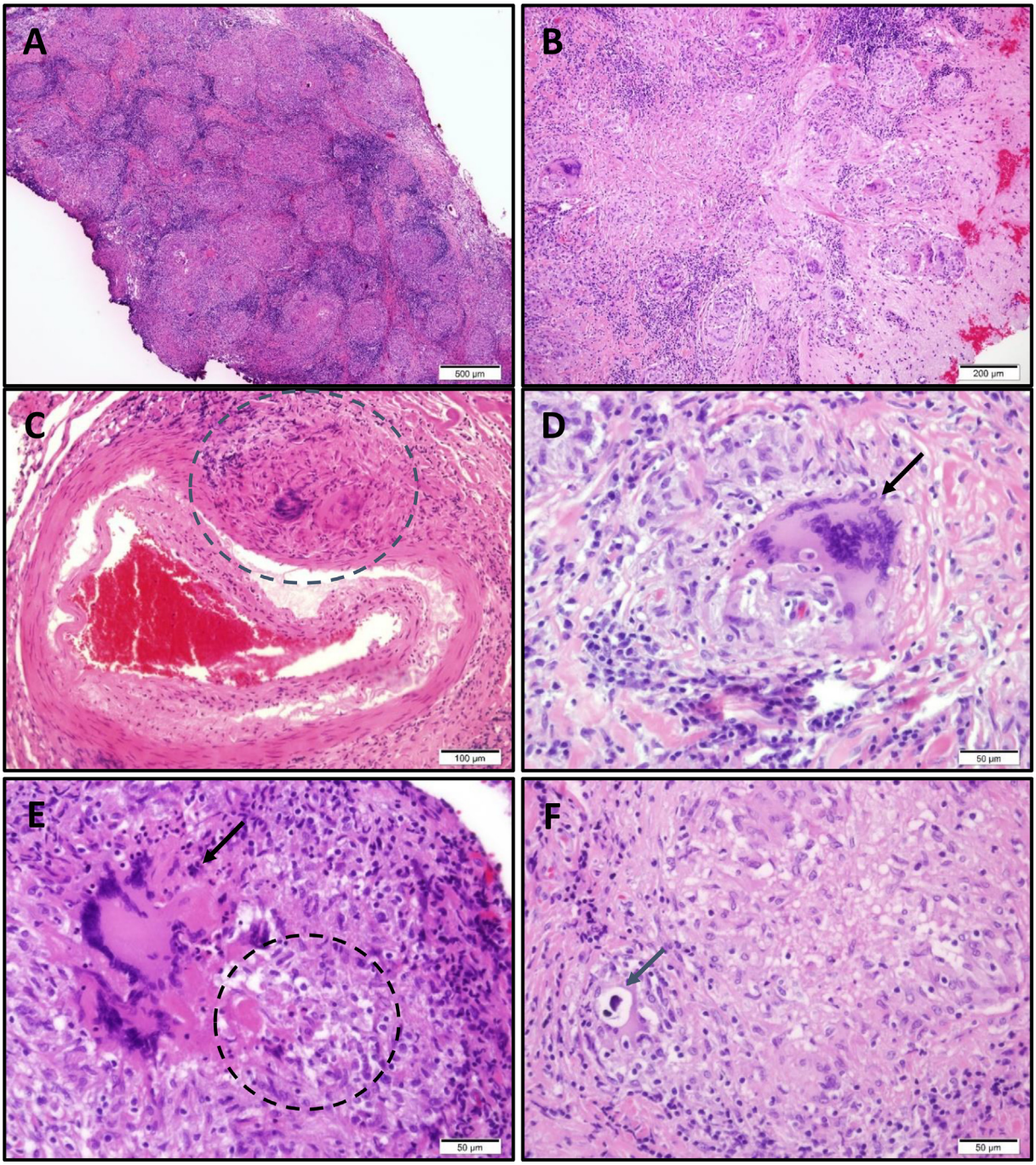

Fig. 2. Paraffin embedded sections stained with H&E displayed a granulomatous process (A[×4]) involving cerebral meninges (B[×10], left side) and parenchyma (B, right side), surrounding and infiltrating blood vessel walls (encircled area in C[×20]), composed of abundance of confluent/coalescing epithelioid granulomas (A, B), with occasional multinucleated giant cells (black arrows in D[×40] and E[×40]) and occasional small foci of necrosis (encircled area in E). Schaumann body-like calcifications were noted (blue arrow in F[×40]).

References

[1] Kidd DP. Sarcoidosis of the central nervous system: clinical features, imaging, and CSF results. J Neurol 2018;265(8):1906–15. https://doi.org/10.1007/s00415-018-8928-2.

[2] Nowak DA, Widenka DC. Neurosarcoidosis: a review of its intracranial manifestation. J Neurol 2001;248(5):363–72. https://doi.org/10.1007/s004150170175.

[3] Smith JK, Matheus MG, Castillo M. Imaging manifestations of neurosarcoidosis. Am J Roentgenol 2004;182(2):289–95. https://doi.org/10.2214/ajr.182.2.1820289.

[4] Ungprasert P, Matteson EL. Neurosarcoidosis. Rheumatic Dis Clinics North Am 2017;43(4):593–606. https://doi.org/10.1016/j.rdc.2017.06.008.