Extravascular papillary endothelial hyperplasia

Extravascular papillary endothelial hyperplasia (EPEH) is an extremely uncommon form of papillary endothelial hyperplasia characterized by an exuberant reactive endothelial proliferation in areas of extravascular hemorrhage rather than within the vascular lumen. Intracranial EPEH is known to develop following radiosurgery in patients with intracranial neoplasms, suggesting a causative relationship between radiotherapy and the development of EPEH. Intracranial EPEH is typically treated with surgical resection, and to date, there have been no reported cases of EPEH recurrence following gross total resection.

A 75-year-old male with a history of atypical meningioma presented with progressive right upper and lower extremity weakness. Eight and a half years prior to admission, the patient underwent surgical resection and stereotactic radiosurgery for a WHO grade II meningioma. Several years later, he developed a mass in the prior resection cavity and was subsequently treated with gross total resection and cesium-131 brachytherapy seeds. Postoperative pathology of the resected tissue at that time showed extravascular papillary endothelial hyperplasia with no evidence of recurrent atypical meningioma. On this admission, MRI showed a recurrent mass in the area of prior resection, at which time the patient underwent a third craniotomy and gross total resection. Postoperative histopathology exhibited findings consistent with the diagnosis of recurrent extravascular papillary endothelial hyperplasia.

This case report is the first known recurrence of intracranial EPEH occurring following gross total resection and brachytherapy [1].

1)
Munier SM, Bitar M, Cohen M, Danish SF. A unique case of recurrent Intracranial Extravascular Papillary Endothelial Hyperplasia following gross total resection and brachytherapy. World Neurosurg. 2018 Jun 8. pii: S1878-8750(18)31197-5. doi: 10.1016/j.wneu.2018.05.243. [Epub ahead of print] PubMed PMID: 29890275.