INTRODUCTION

Dermoid cysts are common, benign neoplasms and often clinically silent. Glioblastoma multiforme (GBM) is a Grade IV astrocytoma according to WHO classification of primary malignant neoplasia. Aneurysms are common vascular pathologies found in a significant portion of the population and are the attributable cause of a large number of devastating cerebrovascular pathologies. Herein, we describe a rare case wherein a patient concurrent, adjacent pathologies including dermoid cyst, GBM and aneurysm.

METHODS

Patient records were collected and depersonalized to exclude patient identification. Subsequently, all available files relating to the patient’s care were surveyed.

RESULTS

A male septuagenarian with a past medical history of long standing seizure disorder presented with new focal, unilateral neurological deficits. Subsequent MR imaging demonstrated a complex intracranial lesion. Upon surgical dissection and debulking, there were multiple tissue types encountered. Histological analysis of the tissue from each portion of the lesion confirmed diagnoses including: dermoid cyst, GBM, and aneurysm. The various tissue types were all in close proximity – vascular, epithelial and glial with necrosis. Additionally, presence of CD68 inflammatory cells was noted throughout. Patient recovery was limited due to peri-surgical complications, which ultimately lead to the patient’s demise.

DISCUSSION

While benign in nature, dermoid cysts do have the capacity to cause seizures and chronic inflammation. For this patient, the only indication of evolving clinical pathology was a change from history of seizure disorder (which intracranial dermoid cysts are known to cause) to new, focal neurological deficit. Inflammation is a known and common component of tissue repair, infection and even malignant processes. Typically acute inflammation is considered beneficial for tissue repair, but chronic inflammation can lead to less desirable states: autoimmune disease, tissue damage, and neoplasia. In this patient the development of high grade glioma is suspected to potentially be a consequence of the ongoing inflammation.

REFERENCES


CONCLUSION

Given our patient’s history, chronic inflammation due to the dermoid cyst/long-term seizures could potentially have paved the way for induction of the GBM.