A giant mucopyocele in a patient with HIV as a late complication of remote trauma

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INTRODUCTION

A mucocele is a mucous containing epithelial lined sac that is usually cystic and benign. When the content of this sac becomes infected, the lesion becomes a mucopyocele [1]. The proximity of a mucopyocele to the brain and the orbit can cause potential morbidity if left without any antimicrobial or surgical intervention. This is a case of a male with HIV who develops a mucopyocele thought to be secondary to remote trauma.

CASE DESCRIPTION

A 54 year old male with HIV, chronic hepatitis C, diabetes mellitus, and hypertension presented with a 2 cm x 2 cm mass on his right forehead that had been present for about 2 weeks. Notably, he had head trauma in 1989 with subsequent ORIF of bilateral frontal bones and of the left inferior orbit. Other than headache and epiphora, he suffered no other symptoms. The patient was hemodynamically stable with no fever. CBC and chemistries were within normal limits. This mass was drained in the ED on presentation, with copious amounts of purulent sanguineous fluid noted. CT head showed a 7.8 x 4.5 x 5.2 cm intracranial extra-axial peripherally enhancing fluid collection centered in the area of the frontal sinuses with postoperative changes associated with overlying hardware (Figure 1). The lesion extended from the soft tissue edema through the frontal bone into bilateral frontal lobes. He underwent a right frontal craniotomy to access the extra-axial mass for draina ge of the brain lesion. During the procedure, there was notable purulent drainage. The patient was started on IV vancomycin, IV ceftazidime, and IV metronidazole. Intraoperative gram stain revealed neutrophils, but cultures were negative. The patient was continued on broad spectrum IV antibiotics for 6 weeks. At 2 week follow-up, the patient is symptom free with no evidence of recurrence (Figure 2).

Figure 1: CT head upon presentation

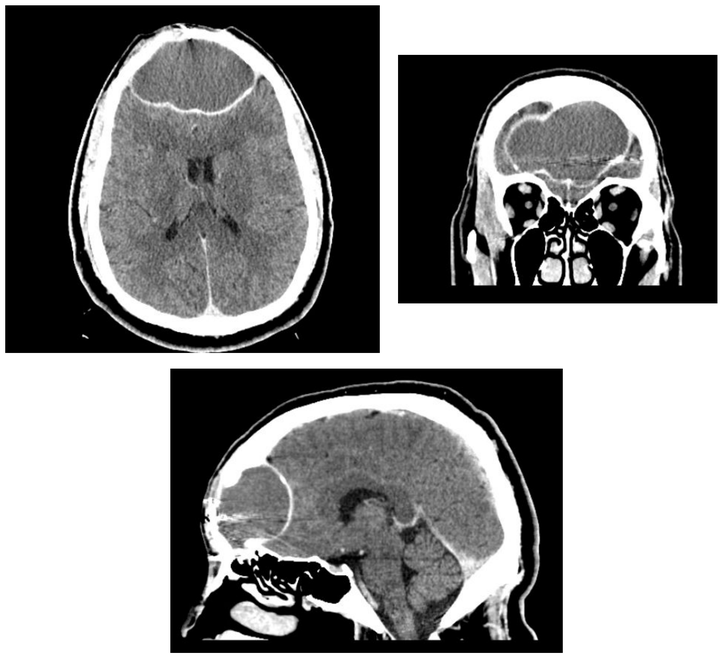
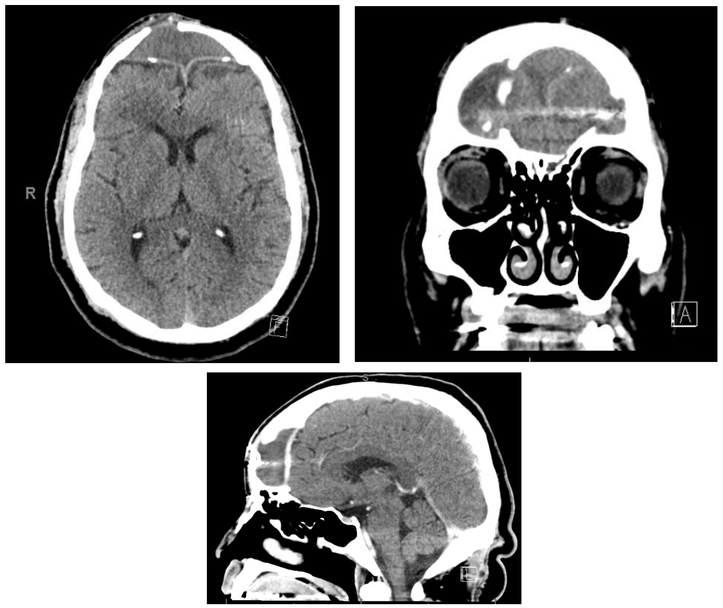


Figure 2: CT head ~1 month after neurosurgery



DISCUSSION

This is a patient who was found to have superficial extension of a large intracranial fluid collection that had likely developed initially as a mucocele as a consequence of previous trauma in 1989, and subsequently became infected. Mucopyoceles are slow growing lesions as evidenced by the duration between initial trauma and the time of presentation in this patient. There are no guidelines on management of mucopyoceles. Surgical intervention is indicated given purulent drainage noted upon aseptic I&D [3]. Appropriate surgical intervention and collaboration between infectious disease specialists, neurosurgeons, and otolaryngologists is crucial for successful outcomes. Although intraoperative cultures remained sterile, perhaps secondary to prior receipt of antibiotics, this patient received 6 weeks of IV antibiotics given the extensive purulent drainage noted. Cultures may be multifactorial or even sterile [2]. Mucopyoceles must always be considered in a patient with prior hardware that presents in this fashion.

REFERENCES

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