Third ventricular dermoid: An unusual tumor at an unusual site

A dermoid is an inclusion cyst having ectodermal elements. Dermoids have an outer connective tissue capsule and are lined with stratified squamous epithelium. The cyst contents include hair follicles, sebaceous glands and sweat glands. Desquamated epithelium and some lipid material are found in the center. Intracranial dermoids account for about 0.04 to 0.6% of all intracranial neoplasms.[1] They commonly occur in the cranial midline, in the posterior fossa, the suprasellar cisterns and the sub-frontal areas. Intraventricular dermoids are rare and occur most frequently in the fourth ventricle. The occurrence of a dermoid in the third ventricle is extremely rare.[2,3]

Figure 1: Axial CT image shows islands of fat and calcification

Figure 2: T1w sagittal image shows fat and an abundance of hair

Figure 3: T2w axial image shows a dermoid in the third ventricle. The hair radiating from the center gives it a “sun and rays” appearance
Letters to Editor

Granulocytic sarcoma of nasopharynx with perineural spread along the trigeminal nerve

Sir,

We present an interesting case of nasopharyngeal granulocytic sarcoma in a young leukemic patient with perineural spread along the mandibular nerve into the cavernous sinus and Meckel's cave and along the trigeminal nerve. Although perineural spread has been described in various head and neck malignancies and rarely fungal infection, it may be one of the pathways of spread of granulocytic sarcoma.

A 25-year-old male patient presented with a five-year history of fever, easy fatigability and bleeding of the gums. Physical examination revealed left axillary adenopathy. Routine chest radiography and an ultrasound examination of abdomen were normal. Peripheral smear revealed blast cells. Bone marrow aspiration confirmed the presence of increased blast cells with Auer rods suggestive of acute myeloid leukemia M2. In addition cytogenetic studies revealed 8:21 chromosomal translocation. The patient was treated with chemotherapy and bone marrow transplantation and achieved clinical remission. Four years later, he presented with swelling in the nasopharynx, difficulty in swallowing and hoarseness of his voice. A computed tomography (CT) scan revealed a large soft-tissue mass in the nasopharynx with extension into the right masticator space and infiltrating the posterior ethmoid air cells, and posterior nasal cavity [Figure 1a-c]. The mass was encasing the right carotid artery and right internal jugular vein and it was extending up to the skull base, however no bony destruction was seen. The skull base foramina were not widened. Fine needle aspiration of the mass revealed blast cells confirming the diagnosis of granulocytic sarcoma. Bone marrow aspiration revealed no blast cells suggestive of remission.

The patient was given a course of chemotherapy and did well for one year. He then presented with right ear discharge and pain. A repeat CT scan showed decrease in size of the nasopharyngeal mass [Figure 2]. However, there was widening of the right foramen ovale associated with an intracranial extradural tumor in the right middle cranial fossa. Bone marrow aspiration revealed 75% blast cells with Auer rods suggestive of relapse. The patient was given both intrathecal and intravenous chemotherapy and radiation therapy. Two months later the patient developed a right facial nerve palsy and pain and paraesthesia in the right side of the face. Magnetic resonance imaging (MRI) revealed a right cavernous sinus and middle cranial fossa mass which was isointense on T2-weighted images [Figure 3] and hyperintense on T1-weighted images [Figure 2]. Focal calcifications were observed in the lesion as hyperdense foci on CT and areas of susceptibility on gradient MRI. Thin linear structures radiated dramatically from the center of the lesion which represented hair giving the lesion a 'sun and rays' pattern [Figures 2-4].

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References


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Figure 4: Coronal FLAIR image shows a dermoid in the third ventricle. The hair radiating from the center gives it a “sun and rays” appearance.