Erciyes Med J 2021; 43(6): 620–1 • DOI: 10.14744/etd.2021.58295
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# An Unusual Presentation of Unilateral Nasal Mass in Infant: Congenital Nasal Encephalocele

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The case presents a 1-year-old boy who came to otolaryngology clinic with right nasal mass noticed by the parents since birth. The child had initial consultations with a few general practitioners but was diagnosed with normal enlarged inferior turbinate. There was no complaint of persistent nasal discharge, bleeding, pain, noisy breathing, or facial disfigurement. He did not have a history of meningitis, prolonged fever, or seizure. The child was active, thriving without feeding problem or developmental delay. On examination, there was an absence of misting on the right with no external nose or facial deformity. A pink, well-circumscribed, smooth surface mass seen was in the right nose (Fig. 1a).

Computed tomography and magnetic resonance imaging demonstrated nasal encephalocele extending through cribriform plate to the right nasal cavity (Figs. 1b, c). The nasal encephalocele was excised and skull base defect was repaired with layers of oxidized cellulose polymer, fat plug, and gel foam. Histopathological analysis showed mature glial tissue with occasional intermingled neuronal cells, consistent with encephalocele. On the latest follow up at four months post-surgery, he was well without complication.

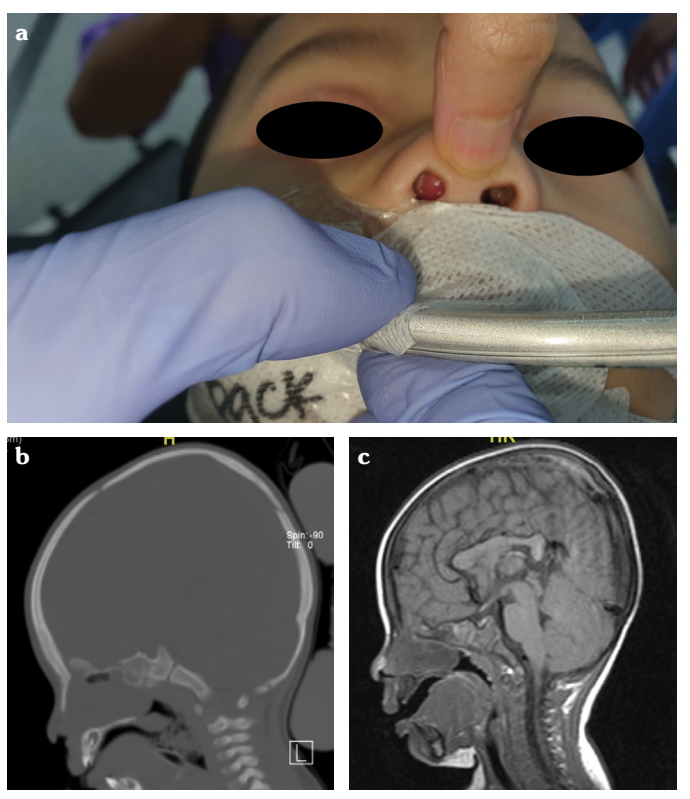


**Figure 1. (a) Pink, well-circumscribed, smooth surface mass seen in the right nasal cavity. (b) Computer tomography (sagittal cut, bone window). (c) Magnetic resonance imaging (T2, sagittal cut)**

Pediatric nasal mass is usually found incidentally by imaging study and occasionally presented clinically with nasal obstruction. Often, its diagnosis was delayed as nasal mass was not apparent on anterior rhinoscopy and only presented with subtle nasal blockage or discharge mimicking upper respiratory infection. Encephalocele is a rare birth defect associated with skull base defect with the herniation of brain tissue. It has been classified as congenital midfacial deformity results of faulty regression of embryological dura diverticulum at the nasofrontal region. The mass can appear intranasal through the extension from foramen caecum into nasal cavity, extra nasal through fonticulus frontalis presenting as glabellar mass or combined. It commonly manifests with midface disfigurement, nose destruction, meningitis, and airway obstruction (1). This case also highlights the importance of imaging before biopsy of a suspicion case of encephalocele in children present with intranasal mass. Computed tomography or magnetic resonance imaging is essential to display defect at the skull base with or without intracranial connection. Early surgical intervention is recommended preferably endoscopic excision with skull base repair to prevent risk of cerebrospinal fluid leak complicating meningitis and future neurological deficits (2).

**Cite this article as:**
Teh HM, Prepageran N. An Unusual Presentation of Unilateral Nasal Mass in Infant: Congenital Nasal Encephalocele. Erciyes Med J 2021; 43(6): 620-1.

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**Submitted**
28.12.2020

**Accepted**
18.01.2021

**Available Online**
04.10.2021

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**Informed Consent:** Written informed consent was obtained from patients who participated in this study.

**Peer-review:** Externally peer-reviewed.

**Author Contributions:** Concept – THM; Design – THM; Supervision – PN; Resource – PN; Materials – THM; Data Collection and/or Processing – THM; Analysis and/or Interpretation – THM; Literature Search – THM; Writing – THM; Critical Reviews – PN.

**Conflict of Interest:** The authors have no conflict of interest to declare.

**Financial Disclosure:** The authors declared that this study has received no financial support.

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