

Nasal Glioma Presenting as Cystic Lesion at Bridge of Nose, an Exemplary Case of Displacement of Neuroglial Tissue in Extracranial Sites

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Received: July 26, 2022; **Published:** August 03, 2022

DOI: 10.55162/MCMS.03.058

Abstract

Presentation at the bridge and root of nose sometimes be a nasal glioma. One such case is presented so as to make nasal surgeon, general surgeon aware of this neurosurgical entity.

Keywords: Nasal glial heterotopia; infant; nasal glioma

Introduction

Nasal glioma, also known as glial heterotopia or the occurrence of isolated non-teratomatous glial tissue is a rare and benign congenital defect. This condition is diagnosed usually at birth time and requires early treatment to prevent facial deformations. We report here a case of extranasal glioma that was diagnosed and treated at the department of Neurosurgery at our institution.

We emphasize on the developmental theory proposed as the etiology and dysglial heterotopias are the displacement of neuroglial tissue in extracranial sites.

Nasal glial heterotopias can be of three types-extranasal, intranasal and mixed. Root of the nose is the most common location.

These are rare anomalies with an incidence of 1 case in 20,000-40,000 live births. Here we report the case of a 18 year old with a congenital mass located at the root of the nose.

Material and Methods

An 18 year old man presented with swelling and pain at root of nose since infancy (photo no 1). Parents /attendant kept ignoring advised surgical treatment due to apprehension of complication and danger to life.

Non-contrast computed tomography studies showed no evidence of intracranial communication of the lesion (photo no 2). The mass was excised (photo no 3).



Photo no 1

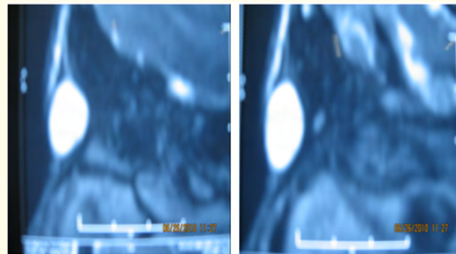


Photo no 2



Photo no 3

On histopathological examination (Photo no 4), it showed glial tissue with astrocytes in a fibrillary background and fibroconnective tissue. Masson's trichrome stain showed the red staining of the glial tissue, whereas the background fibrosis was stained blue. On immunohistochemistry, glial fibrillary acidic protein was positive. Hence, the diagnosis of nasal glial heterotopia was made. The patient had an uneventful postoperative period.

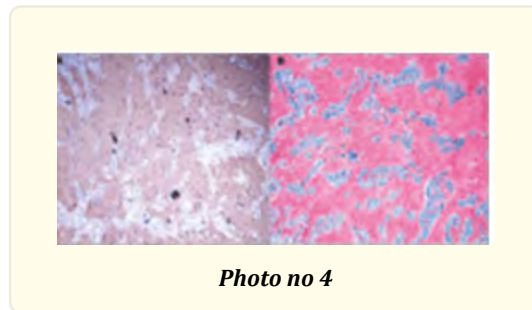


Photo no 4

Rationale

Nasal glial heterotopia is a rare type of neoplasm consisting of meningotheelial and/or neuroglial elements.

Patient concerns

A 18-year-old male was evaluated for treatment for a congenital mass present since birth on the root of nose on dorsum. Normally it is detected at infancy but due to being non symptomatic it may be reported late due to increase in size and or pain.

Diagnoses

The patient was preoperatively clinically diagnosed with a congenital extranasal neoplasm.

Interventions

Surgery was performed under Local anesthesia, and the mass was completely resected. The tissue was sent for histological examination, and the diagnosis was of extranasal glial heterotopia.

Outcomes

The surgical outcome was good, and no surgical site infection was recorded. After 6 months of follow-up, the patient was asymptomatic with no recurrence.

Lessons

Surgical excision, a curative method used to address extranasal glial heterotopia, resulted in no recurrence during the clinical follow-up period. The potential for an intracranial connection must always be kept in mind when considering how to surgically treat a congenital midline mass to prevent the risk of cerebrospinal fluid leakage.

Volume 3 Issue 2 August 2022

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