Nasal Cerebral Heterotopic Tissue (Nasal Glioma)

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We are reporting a rare case of nasal cerebral glioma in a 14 months old Saudi female baby seen in the Otolaryngology department, King Fahd Hospital of the University, AlKhobar, Saudi Arabia. The clinical features, radiology and pathology were studied. The clinical features were right nasal vestibular swelling and nasal obstructive symptoms. Radiology showed that the swelling had no intracranial connection. The histopathology confirmed the presence of glial tissue. Nasal glioma is a rare disease. However nasal swellings without intracranial connection could prove to be heterotopic glial tissue.

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Nasal cerebral heterotopic tissue (nasal glioma) is a rare disease. It is a congenital lesion. More accurately it is referred to as sequestered glial tissue. A common symptom is compromised nasal air passage. Clinical findings include polypoidal masses in either the nasal cavity or the paranasal sinuses. Cerebrospinal rhinorrhoea may occur[1,2]. In this communication we are reporting nasal glioma in a 14 months old Saudi female child. Up to date review of literature and a computerized search showed that there was no similar report from this part of the world.

THE CASE

A 14 months female child was brought to hospital with history of right nasal swelling since birth. Recently it was noticed to be increasing in size and there were moderate symptoms of nasal obstruction. Clinical examination revealed a right nasal swelling almost occluding the anterior nares with right external nasal deformity. CT scan showed a right anterior nasal swelling without intracranial connection Fig 1. Endoscopy under general anaethesia showed a right anterior nasal swelling otherwise the nose was normal. Surgical excision was carried out which revealed a fibrovascular base. Postoperative recovery was uneventful and a normal satisfactory right nasal airway was established. Histopathology confirmed heterotopic glial tissue, immunohistochemically positive for glial fibrillary acidic protein (Fig 2).

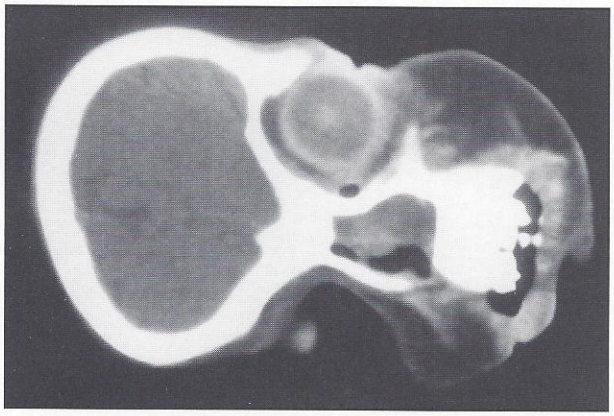

Figure 1. CT Scan showing anterior right nasal swelling without intracranial connection

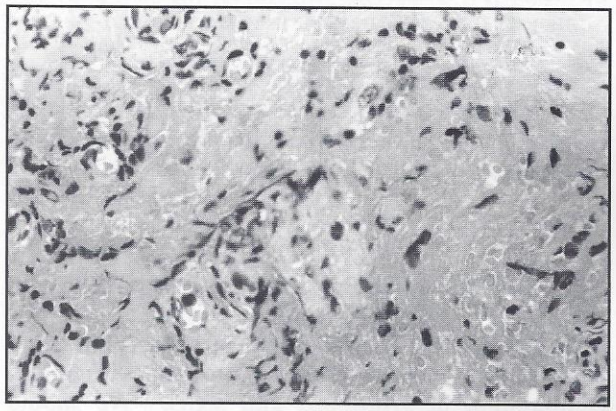

*Figure 2 a. Islands of glial tissue with some foci showing rich capillary net in dense fibrous tissue H & E *40*

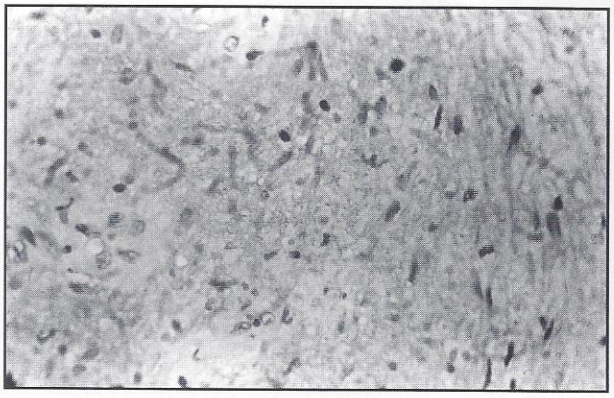

Figure 2 b. Tumor cells immunohistochemically positive for glial fibrillary acidic protein

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DISCUSSION

Nasal gliomas are rare benign congenital masses that are mainly detected in childhood[1,2]. There is similarity between our patient and a 14-month-old Japanese female infant with nasal glioma[3]. The tumor which was in the nasal radix since birth slowly and progressively enlarged. There was no communication between the tumor and the cranial cavity. Our patient was a 14-month-old Saudi female with a nasal glioma in the nasal radix since birth which had gradullay increased in size. This too had no communication between the tumor and the cranial cavity. However in the Japanese report the tumor stalk was anchored to the nasal septum and in our patient the tumor was anchored to the nasal vestibule. Aregenyi ZB reported cutaneous heterotopic neural tumor and heterotopic brain tissue (nasal glioma)[4]. In our patient as well as in the Japanese report[3] the tumor cells were immunohistochemically positive for glial fibrillary acidic protein.

Our report highlighted a rare tumor (nasal glioma) and we hope we have raised the level of awareness to its existence especially in our part of the world.

CONCLUSION

We report a nasal glioma in a fourteen months old Saudi female baby who presented to the hospital with a right nasal vestibular swelling since birth. Surgical excision was carried out and on histopathology it proved to be a glioma.

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