

# Congenital Midline Nasal Sinus/cyst

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## ABSTRACT

An unusual presentation of midline nasal sinus associated with dermoid cyst is presented. Two theories of causation are reviewed.

## INTRODUCTION

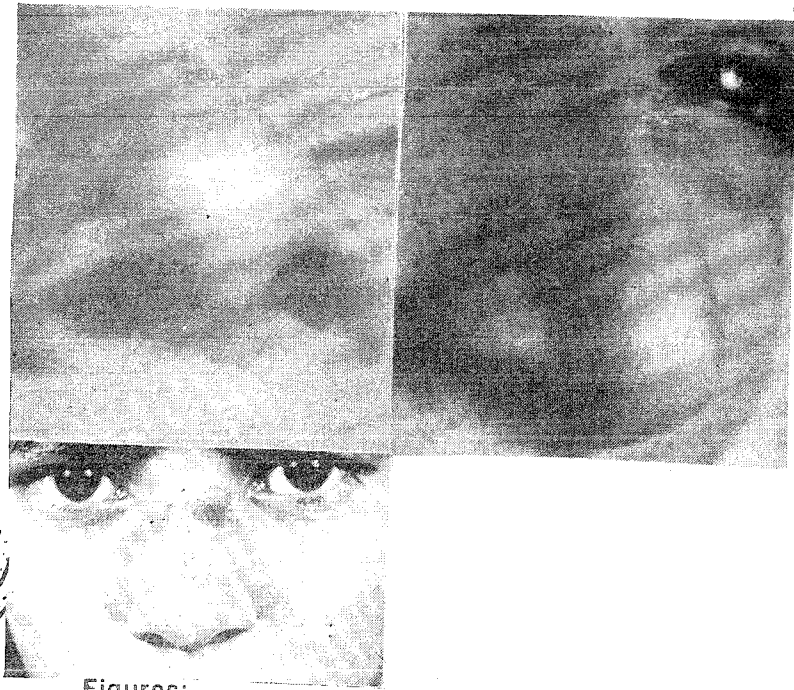
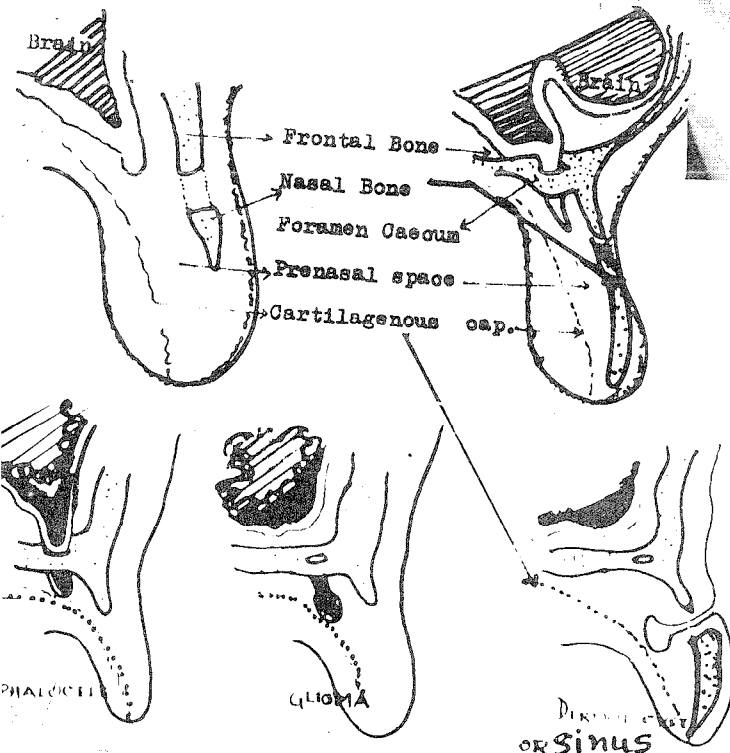
A congenital nasal dermoid sinus is a skin-lined track which opens on the median line of the nose at any point from the glabella to the base of the columella. Its wall is composed of all the elements of the skin, including sebaceous glands and hair and by the partial obliteration of its lumen, it may produce a cyst at some point along its track.

TABLE I  
CONGENITAL TUMORS OF NOSE  
Embryonic origin

Neurogenic		Ectodermic	
i.	Glioma	i.	Dermoid
ii.	Encephalocele	ii.	Sinuses
iii.	Neurofibroma		

EMBRYOLOGICAL REVIEW

There are two main theories of origin of nasal dermoids. One is that they have a deep or cranial origin, the other that they have a superficial or facial origin. Those who favour a cranial origin consider that a portion of foetal ectoderm was trapped or included at the time of closure of the anterior neuropore and the subsequent outgrowth of the frontonasal process from this region transported the free end of the sinus to the dorsum of the nose where it opened.



Figures:

- (1) & (2) Congenital Nasal Dermoid Sinus.
- (2) Post. Op. Result.

CASE REPORT

A 12 year old boy presented with an opening on the dorsum of nose since birth. There was H/O intermittent discharge from this opening. At the age of 11 years this boy sustained trauma on the nose resulting in a scar on the left side of nose. X-ray of nasal bones did not show any abnormality. Sinogram showed a small tract. Probe was passed to confirm direction. The tract was excised completely. Postoperatively upto a follow up of 1 year, patient is doing well.

DISCUSSION

Nasal dermoid sinus is an uncommon congenital abnormality. New and Erich at the Mayo clinic found it to be 1.1. percent of all congenital dermoid cysts and Crawford and Webster at the Columbia Presbyterian center 0.79 percent. Although, there are two theories of causation of these sinuses Dermoids & that is, cranial theory and a superficial dermal theory. It is now suggested that there are cysts and sinuses which have a superficial origin, but it would appear more probable that such

The alternative theory of superficial origin was advanced by Bland Sutton who believed that the nasal capsule consisted of hyaline cartilage covered externally with skin and internally with mucous membrane, and he described how the skin was dissociated from the underlying cartilage at the 3rd month of intrauterine life by bony tissue which became the nasal bones. He postulated that in this intrusion of the nasal bones between the skin and cartilages, small portions of foetal ectoderm remained adherent to the cartilage, became sequestered beneath the nasal bones, and eventually developed into dermoid cysts. This was supported by Ewing, Bruner & Harned, Holmes, New & Erion.

sinuses might arise from aberrations in ectodermal derivatives such as hair follicles and associated glands which then extend with possible involvement of underlying bone, and it is reasonable to postulate that bone (but not cartilage) would be absorbed by the presence of such an expanding cyst. However, it is also postulated that the deeper type of nasal sinuses and cysts are the result of persistence of the median ectodermal portion of the developing trilaminar nasal septum in particular or the essentially midline portion of these lesions, whatever their extensions in other directions may be, strongly suggests that their origin is associated with that of nasal septum.

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