NASAL DERMOIDS – OUR EXPERIENCE

J.P. Dabholkar1, Sandra Desa Souza2, Dinaz K. Irani3, Jayesh M. Ranawat4

ABSTRACT : Dermoid Cysts and fistulas of the nose represent an uncommon embryological error. The frequency of misdiagnosis and recurrences of this lesion indicates the lack of awareness of its occult ramifications which lead to a compromised incomplete excision and are classified as “misadventures”. We would like to present our experience with nasal dermoids – their clinical presentation and management.

Dermoid cysts and fistulas of the nose represent an uncommon embryological error. Dermoids are ectodermal cysts which may contain skin, hair follicles, sebaceous glands and sweat glands. They may have an associated fistula with hair protruding. The incidence of the dermoids of head and neck has been reported as 33% of all the dermoids and from 1 to 2.6 % of dermoids occur in nose (Taylor B.W. et al – 1966: Taylor B.W. and Erich 1967).

Several embryological theories exist:
(i) failure of the anterior neuropore to close. (ii) abnormal separation and obliteration of the prenasal space. (iii) inclusions in facial clefts (iv) simple inclusion cysts. (v) aberrant development of skin appendages (Hyghes et al, 1980; Jaffe, 1981).

The majority of nasal dermoids present at birth although some remain unrecognised till adult life (Hughes et al, 1980). The cyst itself may become infected, produce intermittent episodes of swelling, inflammation and pain. An expanded cyst may produce pressure necrosis of the surrounding bone (Szalay and Bledsoe, 1972) resulting in intracranial communication and hence meningitis (Hughes et al, 1980).

The timing of surgery is a compromise between the risk of interfering with developing structures and excising prior to the onset of complications; two years of age is ideal. Dermoid cysts of the nose occur almost always in the midline and mainly in the following locations: (i) Between alar cartilages (ii) Bridge of the nose, and (iii) In septal cartilage deep to the nasal bone (Scott Brown W.G. et al, 1965). There may be extension into anyone or all of these locations or into surrounding structures including the frontal sinus and dura. The surgical approach is dependent on the position of the cyst and fistula. If both are above the upper lateral cartilage, a longitudinal incision with a medial osteotomy if indicated is ideal. A distal nasal fistula or multiple fistulae may be excised via a later rhinotomy combined with Goodman’s external rhinoplasty. This allows excellent exposure for tracing the fistula through soft tissue and performing an osteotomy. The incision heals well with minimal scarring.

We would like to present three cases of dermoid cysts which came to our O.P.D. with varied presentations.

CASE REPORTS

CASE – I
A twenty year old averagely built female attended ENT, OPD with complaints of depression of base of frontal bone in the bridge area and recurrent purulent discharge from the sinus which was scanty, intermittent, foul smelling and non-haemorrhagic since childhood. CT scan was done which was reported as dermoid (Figs. I, II), and routine investigations.

Fig. I : CT Paranasal Sinuses axial cut showing the nasal dermoid in the paranasal space.

Fig. II : CT Paranasal Sinuses coronal cut showing soft tissue mass with fatty density areas in frontonasal region encased by nasal bones below the frontal sinus suggestive of nasal dermoid.

1Professor and Head of Unit, 2Honorary ENT Surgeon, ENT Hospital, 3Lecturer, 4Senior Resident, Topiwala National Medical College, B.Y.L. Nair Charitable Hospital Trust, Bombay – 400 008.
CASE - I

A 8 month old child attended our ENT OPD with complaints of swelling in the nasal bridge area following a fall sustained few days back. Patient was sent home after being diagnosed as malunited fracture of the nasal bones. Patient followed up after two weeks with complaints of increase in the size of the swelling. Patient followed up at another hospital after few weeks with swelling and external purulent discharge (Fig. VI), diagnosed as a subcutaneous abscess, patient was admitted and incision and drainage of the abscess was done and intravenous antibiotics were given. Patient followed up with us after four months, CT scan of paranasal sinus was advised which was suggestive of a naso-dermoid sinus extending to the foramen caecum. Patient was operated, a midline incision involving the sinus was given and the nasal bones separated in the midline via a medial osteotomy and the mass was removed enmasse and the wound was closed primarily. Patient had an uneventful recovery and followed up with us for six months. CT scan (Figs. VII, VIII).

CASE - II

A 15 year old girl attended our ENT OPD with complaints of fever, headache and swelling over the nasal bridge with a sinus over it since five days. Patient was admitted and intravenous antibiotics were started and patient was taken up for urgent incision and drainage of the swelling. Intranasal drainage was attempted but the consistency of the walls of the abscess and its firm nature pointed to an underlying dermoid. A CT paranasal sinuses (Fig. IX) was done and after...