Large destructive Nasopalatine duct cysts in Namibia

The nasopalatine duct cyst is a benign non-odontogenic cyst of the midline of the premaxilla. It is reported to represent 1.7 % to 11.9 %of all jaw cysts. The clinical features are either swelling in the bone under the upper lip or in the palate. Most reported cases are small and cause divergence of the central maxillary incisors. Some of these cysts are large and cause massive destruction of the palate. This study reports 20 cases in a 30 month period of aggressive nasopalatine duct cysts in a Negroid population in Namibia with reference to the age, gender and tribal origin of the patients in addition to the macroscopic size of the lesions. Most cases occurred in males with the greatest incidence between 20 and 29 years of age. Root divergence was evident in 4 of the 20 cases with root divergence in 2 patients. These large cysts caused a large amount of bone destruction and were located mainly in the palate and floor of the nose, hence not involving the maxillary incisors.

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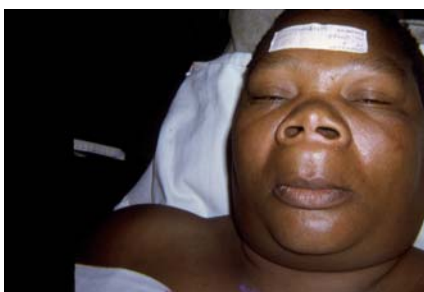
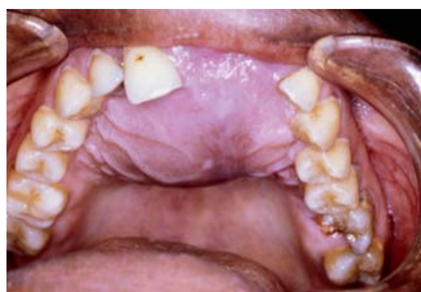
The nasopalatine duct cyst is a benign, non odontogentic epithelial lined cyst found in the pre maxillary area. (Pindborg, Kramer and Toleni, 1971). It comprises between 1.7 % and 11.9 % of all jaw cysts and is the most common non odontogenic cyst of the maxillofacial area (Gulabivala and Briggs, 1992). The cyst arises from epithelial remnants found in the nasopalatine duct (Shafer, Hine & Levy, 1983). It is postulated that the cyst may be genetic in origin or occur spontaneously (Shear 1992), but the exact aetiological factor is still unknown. The clinical features of the nasopalatine cyst are varied. The most common symptom is that of swelling usually displacing the upper lip, or more rarely, a palatal swelling, or both. The swelling is often asymptomatic (Abrams et al., 1963.) Nortjé and Farman, (1975) examined the clinical and radiographic features of 51 nasopalatine duct cysts taken from 2 sources in South Africa. Neville et al. (2002) described the lesion and postulated on its origin. They did not allude to specific data regarding age, sex and distribution in their textbook.
The lesion can extend from the dentinal papilla itself where it is called the cyst of the palatine papilla up to the alveolus, where it is known as the median alveolar cyst. In the incisive canal and premaxilla it is called the nasopalatine duct cyst, and can cause extensive erosion of the palate (Farman and Nortjé, 1975). In a 30 month period of treating oral and maxillofacial surgical cases in Namibia an unusually large number of nasopalatine lesions were referred from various areas in Namibia.
The aim of the study was to report on the age, sex, tribal incidence and size of the nasopalatine duct cysts seen in Namibia in this period and to discuss the aggressiveness of this cyst.

Materials and methods

The series of 20 patients were treated by two maxillofacial and oral surgeons. These patients were seen over a 30 month period at either the State Hospital or Katatura Hospital in Windhoek, Namibia. There were 16 males and 4 females. The age ranged from 13 to 62 years.
Initial diagnosis was determined by means of a thorough clinical examination aided by radiographs Operations were performed intraorally by enucleation. This was performed by means of a buccal approach or palatally infrequently. The lesion could be enucleated entirely through these approaches. No material was placed in the resulting cavity once the lesion had been enucleated so that post operative care could be simplified, and the patient





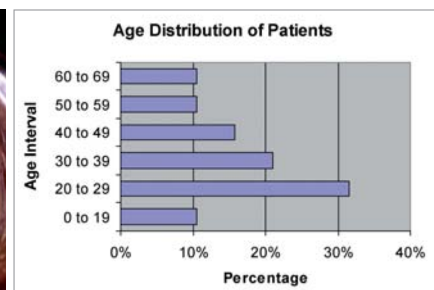


Fig. 1: Swelling of the upper lip due to an underlying nasopalatine duct cyst. – **Fig. 2:** Intraoral presentation of swelling of the palate from an underlying nasopalatine duct cyst. – **Fig. 3:** Age distribution of patients with nasopalatine duct cysts.