PROBOSCIS LATERALIS

By P. B. RAO (New Delhi)

THERE are not many cases of proboscis lateralis reported in medical literature. So, I take this opportunity to report a case of proboscis lateralis which I examined recently.

A child of three years attended the out-patient for the treatment of lacrymation and a trunk-like deformity from a region just above the inner canthus of the right eye since birth.

She was the third child of normal parents, not closely related to each other. During the period of confinement the mother did not suffer either from any infectious disease nor did she take any drugs like insulin or thalidomide. The other two children were normal.

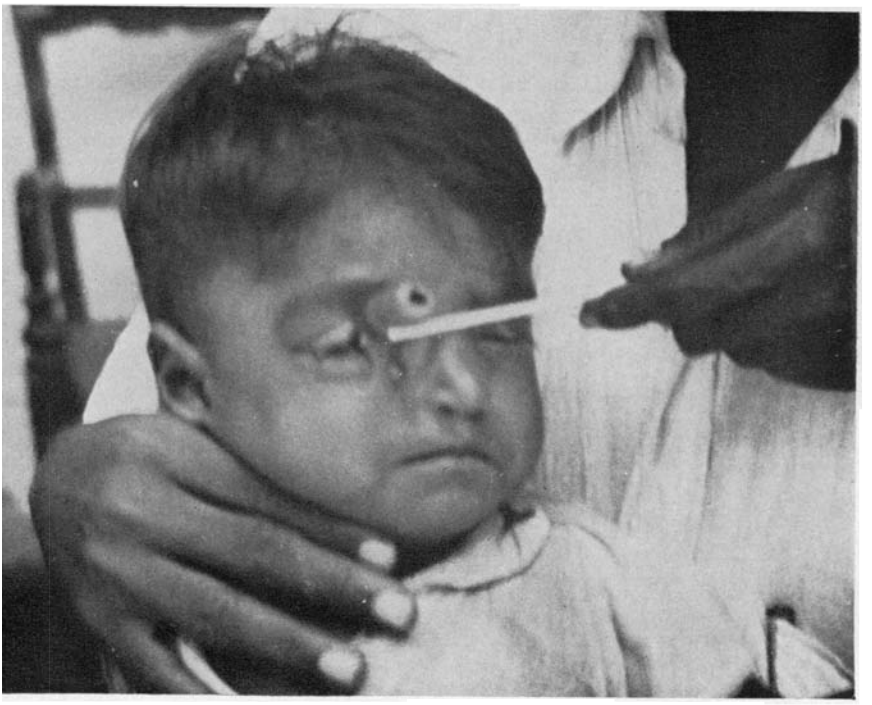


FIG. 1.

Shows the hollow cylindrical growth on right side of nose.

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Examination of the child revealed a moderately nourished individual with no other congenital abnormality.

A hollow cylindrical growth of 1¼ in. diameter, covered with skin, was seen arising from an area just above the inner canthus of the right eye. The distal end of the growth showed an opening with mucoid discharge flowing through it (Fig. 1). A probe passed through this opening stopped at the root of the trunk and did not communicate with the interior of the nose. Both the upper and lower eyelids revealed a cleft near the inner canthus. There was an additional solid growth, half an inch below the above growth (Fig. 2). The nasal bridge was flattened on the right side.

Palpation of the bridge of the nose revealed a deficiency in the formation of the nasal bones.

Anterior rhinoscopy did not reveal any abnormality.

No abnormality was seen in the throat.

Unfortunately, no treatment could be given to the patient, as she met with an accident and died.

Discussion

Proboscis lateralis is one of the rare malformations of the nose. In 1884

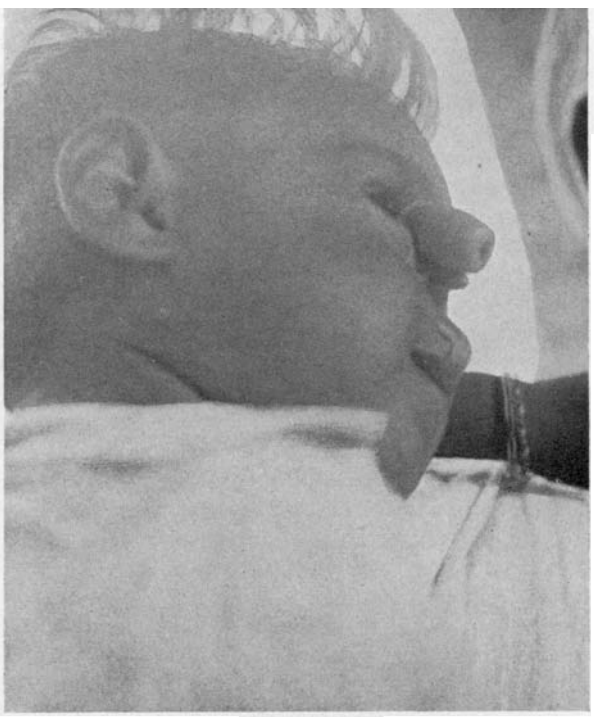


FIG. 2.

Shows the smaller solid growth below the hollow growth.

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Selenkoff described this abnormality for the first time. Subsequently it was described by Seefelder, Landow, Kirchmayr, and Tendlau (1918), and Peters (1910).

As late as 1949, a case was described by Biber in this journal.

The constant feature in all the above reported cases is a trunk-like appendage suspended from the upper and inner wall of the orbit with variable changes in the ipsilateral nasal cavity and its surrounding structures. The changes in the ipsilateral nasal cavity may vary from complete absence of nasal cavity as in the case reported by Biber to a normal cavity as reported by Kirchmayr. In between, there may be partial obliteration of the cavity. Among the surrounding structures the eye is the usual structure involved. The usual defect seen is a cleft either in the lower lid only or in both the eyelids. In the extreme, there may be a persistent naso-optic furrow.

To understand the formation of this abnormality it is necessary to outline the development of the nasal cavity. The mesenchyme between the floor of the forebrain, and the roof of the mouth thickens to form a process called fronto-nasal process. During the fifth week of intra-uterine life the ectoderm on the ventrilateral surface of this process thickens on either side. This is called olfactory placode which dips down to form olfactory pit by the proliferation of its surroundings. This divides the fronto-nasal process into a central median nasal process and to two lateral nasal processes. The median nasal process extends beyond the lateral nasal process into the mesenchyme of the roof of the mouth, where it is called globular process. At the same time maxillary process arising from the dorsal surface of the mandibular arch grows ventrally to meet the lateral nasal process. At the site of the junction of these two processes a furrow is formed called naso-optic furrow, which is later on replaced by a solid rod of cells. This subsequently sinks beneath the surface of the skin. Later on it is canalized to form the naso-lachrymal duct. The maxillary process extends further beyond the lateral nasal process to meet the globular process. Thereby the lower part of the olfactory pit is closed, giving rise to primitive anterior nares. It is clear from the associated abnormalities of the lateral proboscis, that it arises as a result of damage to the lateral nasal process.

Regarding the genesis of this deformity, there is scope for several inferences.

From the associated abnormalities in the eyes and complete absence of side wall of ipsilateral nostril it is clear to a certain extent that the material for the formation of this abnormal structure is derived from the lateral nasal process. This explanation is applicable only to such cases, where there are abnormalities in the ipsilateral nasal cavity and the eyelids, but not to the deformity associated with normal nose. This was explained by Schwalbe and Stupka that a small portion of this lateral nasal process may be remaining in the midst of normal tissue, which retains the power to regenerate on being stimulated by an exogenous stimulus.

In the end, we must say in conclusion that we know nothing regarding the cause of this abnormality.

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A 26D11 Flat,
Moti Bagh II,
New Delhi III,
India

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