CONGENITAL FISTULA OF THE LACRIMAL GLAND*†

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THIS case is of interest because of the unusual position of the fistula—external to the right temporal canthus. Only two similar cases have been previously reported, one by Damato (1956) and the other by Malhotra (1956).

Case Report

A boy aged 5 years was brought by his father to the Ophthalmic Out-Patients Department of S. S. G. Hospital, Baroda, in April, 1965, because tears sometimes flowed from an opening just above the cheek bone at the temporal side of the right eye. This condition had been present from birth, but the flow of tears from the hole was intermittent, and did not always accompany lacrimation.

Examination.—The opening was about 1 mm. in diameter and was situated a few millimetres lateral to the temporal canthus of the right eye (Fig. 1). The canthus and lids were normally developed. There were no lash-like hairs on the skin around the fistula. No nodular enlargement could be felt. There was no tenderness. Transparent fluid was discharged from this orifice when tears flowed from the eye (Fig. 2), and the flow could be increased by the ordinary stimuli which augment lacrimation. There was no evidence of excoriation or maceration of the skin around the orifice; a small probe could be passed into the hole.

FIG. 1.—Fistula beside right eye.

FIG. 2.—Tear coming from the fistula.

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Discussion

The lacrimal gland emerges during the 22–25 mm. foetal stage from basal cells of conjunctiva lying in the temporal portion of the upper fornix. The proliferation of five to eight buds which are surrounded by mesoderm is the basis of development. The buds later on canalize and form the alveoli of the lacrimal glands. The development of the levator palpebral superioris divides the lacrimal gland into the orbital and palpebral lobes. The gland ducts are about twelve in number, two to five being derived from the orbital lobe and six to eight from the palpebral lobe. The majority of ducts open into the temporal part of the superior fornix, but a large duct (which can be called the infero-lateral duct) traverses the external outer end of the gland, passes deep into the conjunctival epithelium, and opens a few millimetres laterally and some distance below the external commissure.

It is also suggested that the cutaneous epithelium may have some part to play in the development of the lacrimal gland.

During development, the large infero-lateral duct of the lacrimal gland may play an important part in the formation of this type of fistula.

In this case the fistula may have been an aberrant opening of the infero-lateral duct of the lacrimal gland, outside the external canthus, and the intermittent flow of tears was probably due to sporadic infection or blocking of the ductule.

Summary

A case of congenital fistula of the lacrimal gland is reported, the third to be described wherein the lids and canthus were normally developed and the opening was external to the temporal canthus.

REFERENCES

- DAMATO, F. J. (1956). *Brit. J. Ophthal.*, **40**, 506.
MALHOTRA, M. (1956). *Ibid.*, **40**, 559.