
CASE REPORTS

GLOSSO CUTANEOUS THYROGLOSSAL FISTULA

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A complete thyroglossal fistula with a patent internal opening at the base of tongue is extremely rare. Some authors doubt the possible occurrence of such a fistula, believing that the foramen caecum is not the site of origin of the thyroglossal tract. We report here a case of a patent glosso-cutaneous thyroglossal fistula.

Case Report

A 28 year old female presented with a draining opening in the upper right side of the neck which developed following incision of an abscess at the age of seven. She could not recall if the abscess was preceded by neck swelling or not. The discharge was described as scanty, white, and odourless, sometimes increasing during mastication. She noticed that the discharge became more copious and thick whenever she developed a throat infection.

Examination showed a discharging "ski" opening surrounded by scarring at the level of hyoid bone, about 2 cm to the right of midline. The discharge was scanty, white, mucoid and odourless. Culture of the material grew haemolytic streptococcus. A fistulogram showed a patent tract between the "ski" opening and the base of the tongue (Fig. 1). A sialogram of the right submandibular salivary gland was normal.

The patient was consented for excision of the tract under general anaesthesia. Methylene blue injected into the skin opening was found to flow to the midline of the tongue dorsum at the junction of the anterior two thirds with the posterior third. Sistrunk's operation was performed in order to excise a thick tract extending from the "ski" to the anterior surface of the body of the hyoid, thence to the tongue base in the midline. Histological examination showed a duct lined by respiratory epithelium with chronic inflammatory cells and thyroid follicles embedded within the muscle bundles of the duct wall.

Discussion

The thyroglossal tract is formed during the fourth week in



FIG. 1. Fistulogram showing the contrast passing to the base of the tongue area from where it was swallowed. Some of the contrast was propagated to the right submandibular gland.

utero as a" endodermal epithelial invagination from the floor of the pharynx. It penetrates the underlying mesoderm and descends anterior to the foregut to reach its final position in front of the trachea at the seventh week (Allard 1982). The thyroglossal tract disappears by the eighth to tenth week (Telander and Deane 1977).

Thyroglossal cysts and sinuses constitute a frequent pathological condition in the neck. There is little disagreement that the thyroglossal cyst is a congenital lesion which arises from the epithelial remnant of the thyroglossal tract, and that the thyroglossal sinus is almost always the result of infection or inadequate surgical interference with a cyst.

However, there is still controversy about whether the thyroglossal tract is a solid cord of epithelial tissue (Norris 1918), a hollow tube (Marshall 1953), or a duct that eventually becomes obliterated (Noyek and Friedberg 1981). This controversy is reflected in the terminology found in the literature with the terms thyroglossal duct cyst, thyroglossal tract cyst and thyroglossal cyst being equally used.

Further, the literature demonstrates a difference of opinion regarding the foramen caecum located at the apex of the V shaped sulcus terminalis on the dorsum of the tongue. Many authors believe that the foramen represents

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the point of origin of the thyroglossal tract (Telander and Deane 1977, Noyek and Friedberg 1981). However, other authors state that the development of the tongue occurs later than the descent of the thyroid, and that the foramen, which is sometimes associated with a blind ending pit or tube named the lingual duct, probably represents the point of union of the paired anterior and posterior segments which form the base of the tongue (Ward et al 1970, Maran 1987).

This case report suggests that the thyroglossal tract arises as a tubular structure rather than an epithelial strand from the foramen caecum. Consequently, a thyroglossal cyst may have a patent connection with the base of the tongue, and a fistula may develop if the lesion also has connection to the skin. The association of thyroglossal cysts or sinuses with an internal opening is probably more common than it is generally realised. Telander and Deane (1977) reviewed a series of 338 patients at the Mayo Clinic and noticed a frequent history of intermittent fetor and bad taste in the mouth associated with spontaneous decompression of a cyst, believing that this is evidence of an internal opening.

There is also a confusion in the literature in relation to the terms "sinus" and "fistula". Many authors use the term "fistula" for any connection between the lesion and the outside of the body (Allard 1982). However, this is erroneous. The term fistula refers to an abnormal

connection between two epithelial surfaces. Most of the cases described are skin sinuses with no internal opening and we would recommend using the term fistula for such cases where there is a patent tract between the skin and tongue as in the case reported here.

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THE CAT'S TONGUE

That the curious roughness of the Tongue of the cats is in reality begot for flesh-rasping is to my mind a very doubtful supposition. I think it may be contended that among the functions for which this peculiar roughness would be required, the business of coat toilet far outweighs that of flesh-rasping when we come to observe the habits of, even, a domestic cat. Although the flesh-rasping function has become the accepted and traditional explanation of the peculiar rasp like nature of the tongues of the Felidae, I feel certain that the brush-and-comb tongue is essentially a toilet implement, and that the flesh-rasping habit is rather a minor one, magnified in order to explain a very peculiar structure. In such a study as this we must not forget that apparent triviality may be compensated for by frequency; a condition that is often not duly considered. The toilet of the Feline's coat is a never-ending business; for every once that a cat's tongue is called upon to rasp flesh from bone it is employed a hundred times as brush and comb and sponge in one.

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1925