LINGUAL ABSCESS—AETIOPATHOGENESIS

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LINGUAL abscess is considered to be a very rare inflammatory disease of the oral cavity, so much so that no mention of this entity has been made in some text books of surgery. Mead (1954) believed that this occurred on one side of the tongue on the dorsal surface towards its base. Wakeley (1960) was of the opinion that it results from acute superficial glossitis but more usually of chronic nature situated in the anterior part of the tongue. He thought that this disease was due to infection of some superficial lesion which has quickly healed. Myers and Roberts (1965) reported one such case. They blamed foreign bodies, trauma from carious teeth, acute parenchymatous glossitis and infected circumvallate papillae as the aetiological factors. No other reference is available in the recent literature on this subject.

But, contrary to the usual experience, we in this part of the country have seen five such cases during a short period of 5 months, July 1965 to November 1965. They were investigated to study the aetiopathogenesis of this disease.

All the cases in this series were males between the age group of 25–50 years. They were all agricultural workers from the rural population. Pain in the tongue, excessive salivation, dribbling of saliva, pain on swallowing and change in the character of the voice were their chief complaints. One of these cases gave a history of a penile sore 1 year back. All the cases were vegetarian and their dietary habits were non-contributory towards the aetiopathogenesis of this disease.

Two patients were febrile at the time of admission, their temperature ranging up to 100° F. All of them were well built and well nourished. The middle of the anterior two-thirds of the tongue was involved in all. The right side was affected in three cases and in the remaining two cases the left side was diseased. The swelling in all of them was non-fluctuant. The tongue was coated and tender. Circumvallate papillae showed no pathology.

Total and differential leucocyte counts were within normal limits in all except one in whom it was raised. Blood haemoglobin content was

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between 11·0–13·5 gm. per cent. Erythrocyte sedimentation rate was raised in all except one case. It ranged between 23–78 mm., 1st hour Westergren. Urine examination for sugar was negative and fasting blood sugar was within normal limits. Serum proteins were studied in four cases and ranged between 6·0–7·8 gm. per cent. Screening of the chest was normal. Tuberculin test was non-contributory. Thick, yellowish, purulent material was aspirated in three cases. Culture of this material revealed growth of staphylococci and streptococci sensitive to penicillin and resistant to achromycin, chloromycetin, erythromycin, streptomycin and terramycin. Blood for V.D.R.L. was negative in all except the one case who gave the history of penile sore 1 year back.

Dental examination revealed that posterior teeth on the involved side showed sharp and rough edges. The tongue showed dental indentation and evidence of trauma on the involved side by these sharp teeth.

Patients showed relief immediately after aspiration of pus. All the patients were treated by parenteral administration of penicillin and all made an uneventful recovery.

Discussion

Lingual abscess, considered to be rare has not been reported frequently. Trauma to the tongue by a foreign body or by accidental bite can act as a portal of entry of infection. Infection can also travel from infected circumvallate papillae. In the cases under study, one of these factors could be blamed. Posterior teeth showed sharp edges on the involved side. They were responsible for trauma to the tongue which acted as pathway of infection. This is further confirmed by the fact that the tongue showed dental indentations. Staphylococci and streptococci are the commonest organisms isolated from these cases.

Two cases were febrile at the time of admission, temperature going up to 100° F. Total leucocyte count was raised in one case. These features point towards the fact that the infection in these cases was not of very acute onset. One reason was that all the patients were well built and well nourished, their blood haemoglobin level and serum proteins were within normal limits, signifying that their resistance to infection was quite high. The other reason was that the tongue is very resistant to infection because of the thickness of the mucosa, resistance of the muscle to infection, cleansing action of saliva and abundance of the vascular supply. McLaughlin and Davis (1942) were of the opinion that constant exposure of the tongue to infection provides a certain amount of local immunity.

Commonest site of the tongue involved was the middle of anterior two-thirds. This is in contrast to the view held by Mead (1954) who believed that dorsal surface towards the base was the most frequently involved site.

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The presenting symptoms are very characteristic. They are pain in the tongue, difficulty in protruding it, excessive salivation, dribbling of saliva and change in the voice of the patient. Examination reveals that the involved side is markedly coated and tender. The swelling is non-fluctuant because the tongue is a muscular organ. No evidence of diabetes or tuberculosis has been found in this series. All the cases in this series have been males quite in agreement with the observation of Myers and Roberts (1965). Aspiration of the pus is advocated followed by administration of appropriate antibiotics. The prognosis is good and recovery is quick and uneventful.

It can be emphasized that to prevent this disease, a thorough dental check-up and treatment by a qualified dental surgeon is essential.

Summary

Lingual abscess is not rare in this part of this country. Five such cases were observed in a short period of 5 months. It is more common in males and villagers. Staphylococci and streptococci are the commonest offending organisms.

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