MASSETERIC HYPERTROPHY

A Case Report

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SUMMARY: A case of Bilateral Masseteric Hypertrophy, with a greater involvement of the left side has been presented, with comments on the diagnosis and treatment of the condition.

Benign Hypertrophy of the masseter muscle seems to be more common than the literature would indicate. The condition may be congenital or acquired, and in some cases of the latter the contributory causes are, abnormal masticatory habits, bruxism and habitual clenching of the teeth. Enlargement of the angles of the mandible is secondary in origin and results from the excessive function of the masseter muscle.

Eubanks (1957) thought that abnormal spur formation shown on radiographs at the angles of the mandible was of diagnostic significance. This was a consistent feature on the cases described by Masters and Co-workers (1955) and in a previous case described by one of the present authors Kessel (1970). It also appears in the case reported here.

Surgical treatment is for cosmetic purposes and involves excision of the deeper layers of the masseter muscle as well as the abnormal spur formation at the angles of the mandible. The operation is best performed via an extra-oral approach, and it is important that the surgical reduction of the muscle mass takes place from its deep aspect, as filaments of the facial nerve lie close to the perimysium of the muscle on its lateral aspect. Coffey (1942) believed that in certain cases conservative therapy, such as the elimination of the habit spasm or gum chewing was the treatment of choice.

Case report

A 19 year old male soldier, P. J. H., presented on 29 June 1971 complaining of a swelling on the left side of his face near the angle of the lower jaw. The swelling had developed during the previous 6 months, did not increase in size at meal times, and had now become so noticeable that his colleagues were drawing his attention to it and he was himself becoming increasingly conscious of his condition. The patient stated that he was an enthusiastic gum chewer.

Previous medical and dental histories revealed nothing of relevance and there was no family history of such a condition.

On examination the patient was seen to have bilateral fullness of his face with a more obvious diffuse swelling at the left angle of the mandible, and on palpation it was thought that this was in the substance of the masseter muscle (Fig. 1). The swelling became firmer and more discrete when the teeth were clenched (Fig. 2).

Intra-orally there was no evidence of any dental infection which could account for the swelling. Stensen's and Wharton's ducts appeared normal.

Radiographs showed enlarged mandibular angles with spurring on both sides (Fig. 3). Sialography of the left parotid gland was normal.

Fig. 1. Pre-operative view showing swelling at the left angle of mandible.

Fig. 2. Swelling becoming more discrete when teeth are clenched.

Fig. 3. Pre-operative lateral oblique radiograph showing an enlarged left angle of the mandible with spurring.

Fig. 4. Spurring at angle of mandible shown at time of operation.

Fig. 5. Postoperative result.

The condition was diagnosed as Bilateral Hypertrophy of the masseter muscle with a greater involvement of the left side. It was decided to carry out a surgical reduction of the left masseter muscle in order to restore facial symmetry.

Following the induction of general anaesthesia on 29 September 1971 the left masseter muscle was exposed via an extra-oral submandibular incision and the deeper portion was excised accordingly. The spurring at the angle of the mandible was reduced using a large vulcanite bur in a dental handpiece, (Fig. 4). The incision was closed in layers and a Redi-vac drain inserted.

The patient made a good postoperative recovery and examination about 6 weeks later showed that the facial symmetry had been restored, (Fig. 5). The pathology report confirmed that there was no evidence of disease.

Discussion

The diagnosis of Masseteric Hypertrophy is established by the history, clinical examination and radiological appearance. It is important that sialography is carried out in all suspected cases to eliminate the possibility of pathology of the parotid gland or obstruction of the parotid duct. The differential diagnosis should also include lipoma and infection in the tissue planes.

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