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SURGICAL REPAIR OF BILATERAL MULTIPLE MANDIBULAR TORI: A CASE REPORT.

Dental Science

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ABSTRACT

The present case report highlights the successful surgical management of bilateral multiple mandibular tori in a 47-year-old female patient having difficulty in mastication and speech owing to these bony growths. The patient's desire to get an implant supported prosthesis in lower jaw warranted the removal of these tori. The patient had considerable relief after the removal of tori. No recurrence was noted at one-year follow-up period. The lasers could prove viable option for atraumatic removal of the bony exostosis, causing minimum post-operative discomfort.

KEYWORDS

Mandibular tori, bilateral, surgical removal, lasers.

BACKGROUND:

Torus or **Tori** is a benign bone growth in the mouth, and in 90% of the cases, there is a torus on both the left and right sides of oral cavity, making this an overwhelmingly bilateral condition. [1] *It* normally does not cause any serious damage. It will cause discomfort and if the growth continues, mandibular tori can cause pain or disturbed mouth functions. The size of the tori may fluctuate throughout life, and in some cases, it can be large enough to touch each other in the midline of the mouth. They are covered with a thin and poorly vascularised mucosa. [1] They are usually located at the longitudinal ridge of the half palatine, at the union of the palatine apophysis of the maxillae or on the internal side of the horizontal branch of the jaw, above the mylohyoid line and at the level of the premolar and canine areas, presenting a very slow and progressive growth that can stop spontaneously.[2-4]

There are many notions on the formation and implications of tori,[5-7] but these remain largely unsubstantiated to date. The (abnormal) mechanical loading presumably is associated with the formation of tori.

Tori can be easily diagnosed and no biopsy is necessary, its surgical removal is not required unless in case of chronic trauma or interference that interfere with oral functions or with the replacement of a denture base or framework. The present case report highlights the need of surgical removal of bilateral multiple tori in a 47-year-old female patient, desirous of an implant supported prosthesis.

CASE REPORT:

A 47-year-old female patient was presented in the outpatient department of Zonal Hospital Mandi, Himachal Pradesh with a chief complaint of discomfort and difficulty in mastication due to abnormal growths in her lower jaw on both sides. On examination it was seen that multiple bilateral tori were present on the lingual aspect of mandible, extending from canine to first molar region **(Figure 1a & 1b).** The swelling was covered with a thin, intact mucosa with normal colour. It was non-tender and hard in consistency upon palpation. The patient had missing teeth #47, #35 & #36 and wanted an implant supported prosthetic replacement for these teeth **(Figure 1a & 1b).** The medical history was non-contributory. After routine blood investigations, it was planned to remove the bilateral multiple tori surgically.

Bilateral inferior alveolar nerve block with local infiltration (2% lignocaine hydrochloride with adrenaline 1:80,000) was administered. A full thickness mucoperiosteal flap was raised from the lower left side second molar extending over lingual aspect of lower anterior teeth till right second molar tooth, taking care that the thin flaps do not lacerate or tear, and the tori were exposed lingually **(Figure 1c)**.

A horizontal guiding groove was made at the base of the tori using a straight fissured bur under copious saline irrigation. Periosteal elevator was placed at the base of the tori to protect the underlying lingual tissues. Following the guided groove, the tori were resected in bloc using chisel and mallet **(Figure 1d & 1e)**. Wound closure was done using interrupted black braided 3-0 silk sutures **(Figure 1f)**. The patient was asked to revisit after 1 week for suture removal.

Figure 1a & 1b: Pre-operative images depicting bilateral mandibular tori and partially edentulous spans in relation to tooth # 35, 36 &47. **Figure 1c:** Tori seen after elevation of mucoperiosteal flap. **Figure 1d**: Excision of tori with chisel and mallet. **Figure 1e:** Excised bony masses. **Figure 1f:** Flap sutured in place. **Figure 1g:** Immediate post-operative image showing good healing. **Figure 1h**: Post-operative image at 1 year follow-up with no inflammation and no recurrence.

The patient returned 1 week after surgery for suture removal and to get the healing checked. There was minimal inflammation, and the patient indicated that she had minimal discomfort after surgery and that the area felt normal 3 days after surgery. A follow-up appointment was scheduled at 4 weeks after surgery to check the site. The surgical site 4 weeks after surgery showed lack of inflammation and complete healing **(Figure 1g)**.

The one-year follow- up revealed absolute inflammation free healing at the surgical site with any recurrence of bony growth **(Figure 1h)**. It was planned to place implant supported prosthesis in the edentulous areas.

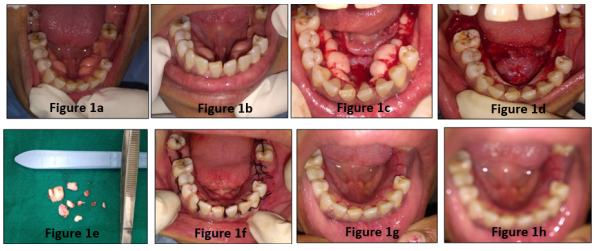

Figure 1a & 1b: Pre-operative images depicting bilateral mandibular tori and partially edentulous spans in relation to tooth # 35, 36 &47.
Figure 1c: Tori seen after elevation of mucoperiosteal flap.
Figure 1d: Excision of tori with chisel and mallet.
Figure 1e: Excised bony masses.
Figure 1f: Flap sutured in place.
Figure 1g: Immediate post-operative image showing good healing.
Figure 1h: Post-operative image at 1-year follow-up with no inflammation and no recurrence.

DISCUSSION

Tori are asymptomatic and exhibit slow growth during the second and the third decade of life. The aetiology of tori has been investigated and several factors have been proposed including genetic factor, [8]

environmental factors,[8] masticatory hyper function and continued growth. [9]

In the present case report, the patient had difficulty in mastication and speech due to multiple mandibular tori and also wanted an implant supported prosthesis, hence it was planned to remove them surgically.

Complications of tori excision with burs or chisel techniques include postoperative pain, edema, appearance of bony spicules, salivary duct injuries, lingual nerve injury, perforation of lingual plate, emphysema, wound dehiscence, and infection. Our case exhibited good healing results without post-operative complications.

The literature suggests use of corticalised bone from the excised tori as autogenous bone graft in the areas of periodontal bone loss[10] or for ridge augmentation procedures.[11]The Erbium, Chromium doped Yttrium Scandium Gallium Garnet (Er,Cr:YSGG) all-tissue laser has been shown to be safe, atraumatic and effective in excision of severe mandibular lingual tori.[12]

CONCLUSION

The surgical removal of mandibular tori is a routinely performed minor surgical procedure and it ensures predictable results, if executed with care and precision.

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