**CASE REPORT**

**Excision of Squamous Papilloma in a Child with Diode Laser: A Case Report**

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**ABSTRACT**

The present article reports a case of a 3-year-old child with swelling of gingiva on upper front teeth since few weeks and its management with diode laser. The lesion was excised with laser and sent for histopathological examination. The final diagnosis was squamous papilloma. For intraoral soft tissue surgical techniques, the laser is a feasible substitute to the scalpel. In the contemporary dental practice using laser technology, procedures can be executed with less invasive methods especially in pediatric practice.

**INTRODUCTION**

Epulis is a non-specific term any tumour like enlargement situated on the gingiva or alveolar mucosa. They are of three types i.e. fibromatous, ossifying and acanthomatous. The etiology of epulis could be attributed to irritative factors or hormonal changes. The treatment is focused to remove the etiological factors and excision of the lesion.¹⁻³

The aim of this article is to present the case report of a child of 3-year-old with swelling of gingiva and to review the current literature concerning the clinical and histopathological features of this uncommon lesion in children and its management with Diode laser.

**CASE REPORT**

A 3-year-old boy was referred by a pediatrician for evaluation of a swelling of gum on the upper front teeth. Child’s parents revealed that swelling was present since past few weeks. The swelling started as small painless growth gradually progressed to present size. They revealed that the patient had no relevant medical history. Extra oral examination revealed no abnormality. Intra oral clinical examination revealed solitary growth on the anterior aspect of the left central and lateral primary incisor (Fig. 1). It was 2.5 × 4 cm in dimension, pale pink in color, sessile, firm and ovoid in shape with pebbly or papillary surface. All inspectory findings were confirmed on palpation. It was a painless firm non-compressible swelling. It was provisionally diagnosed as fibroma.

**Surgical Procedure**

After local anesthesia was given, a diode laser with a wavelength of 940 nm (EZLASE), fiber with a diameter of 400 µm, at 2 watts in continuous mode (Fig. 2) and straight hand pieces through which the laser beam is applied to the oral soft tissue in contact type treatment mode was used. The patients, the surgeon and the operative staff wore safety glasses throughout the procedure. The lesion was excised totally and hemostasis was done with laser without need for suture application. The tissue was sent for histopathological examination (HPE). The patient was recalled every 1 month for 3 months for revaluation (Fig. 3).

The HPE report (Fig. 4) revealed a benign, finger-like proliferation of stratified squamous orthokeratinised epithelium with prominent of stratum granulosum. Areas of hyperkeratotic epithelium is evident with no features of dysplasia. Mild basilar hyperplasia in the lower third of epithelium was evident. Kolicytes in the stratum spinosum was evident with perinuclear halo. Stroma showed mild chronic inflammatory cells with lymphocyte predominance. The above features are suggestive of oral squamous papilloma.

**DISCUSSION**

As far as the treatment of fibroma is concerned, a conservative surgical excision is usually curative and is the treatment of choice in most cases reported in the literature regarding children under the age of 10.¹

Electrosurgery is another option and has been used in paediatric dentistry in various procedures such as frenectomy, incision of hyperplastic gingiva, biopsies and pulpotomy.⁴⁻⁵ Electrosurgery’s main advantage is the direct tissue haemostasis without the need for sutures.

In addition, there can be access to areas difficult to reach and reduction of chair time, factors extremely valuable in pediatric dentistry. Laser therapy has been suggested as an alternative...
The significant benefits described in the literature for treating a lesion with diode laser are negligible postoperative pain, better healing. Other advantages of the laser when compared with scalpel are highly decontaminated surgical bed, no need for periodontal dressing and the appearance of fewer myofibroblasts resulting in comparatively lesser wound contraction.

CONCLUSION

For intraoral soft tissue surgical techniques especially for children, the laser is a feasible substitute to the scalpel. On the other hand, the value of this information with regard to wound healing, haemostasis, cost-efficiency, well-being and surgical aftermath's needs to be further analysed in clinical situations.

REFERENCES


Statement of originality of work: The manuscript has been read and approved by all the authors, the requirements for authorship have been met, and that each author believes that the manuscript represents honest and original work.

Source of funding: None

Conflict of interest: None

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