

Immediate extraction implant placement in infected sockets using Er, Cr, YSGG laser assisted surgery

Ashish Kakar; Vikrant Choudhary; R.C. Kakar; Manesh Lahori; Kanupriya Kakar

INTRODUCTION

With the advent of technology in all spheres, dentistry has also progressed by leaps and bounds. Now with the introduction of lasers in dentistry, it has become much more precise in terms of control and it enables the dentist to prepare the implant site with minimal trauma to the hard and soft tissue enabling a more precise and comparatively atraumatic surgery. Laser considerably reduces or eliminates the inflammatory response. It also promotes the release of enzymatic inhibitors of the inflammatory process. Lasers have bactericidal properties which reduce the problems of infection. It also stimulates the healing of hard and soft tissue.

In implant dentistry, laser application can seal blood vessels, lymphatic vessels and nerve fibres. It significantly reduces the mechanical trauma and bacterial counts.

It is a more precise tool as compared to surgical handpiece, has antiseptic qualities and reduces trauma during the procedure.

CASE REPORT

A 60 years old gentleman, a senior consultant at a reputed hospital with the history of CAD (coronary artery disease) and PTCA (percutaneous transluminal coronary angioplasty) on blood thinners presented with traumatic bite and multiple fractured teeth. It was decided to surgically extract the root stumps with minimal trauma so as to have some control over bleeding and also to preserve the bone for osteointegration. A CBCT was done pre-operatively to plan the root extractions and implant placement. The patient had a failing fixed bridge from 17 to 14. Post extraction, extraction site was disinfected and all infected bone and granulation tissue was



removed using lasers. Osteotomy site was prepared using the desired protocol for NOBEL ACTIVE IMPLANT placement. Three NOBEL ACTIVE IMPLANTS were placed, two into the extracted sockets of 14 and 15 and one in the healed site of 16. Initial primary stability was achieved with all implants. Deficient areas around the

socket was grafted with Easy-Graft crystal and no membrane was used. The soft tissue was sutured with 4-0 vicryl sutures to achieve a primary closure. The procedure was totally atraumatic and resulted in uneventful surgery and recovery with minimal inflammation, pain and discomfort as compared to minimum 3 months wait in conventional procedures.

CONCLUSION

Using the YSGG Laser as expected decreases the amount of postoperative pain. In fact the majority of patients experience very minor amounts of discomfort, 1 to 2 on a scale of 0 to 10. A number of patients respond that they took their initial dose of analgesics but never experienced any pain; consequently, they did not take any other pain medication after placement.