Utility of Laser in Lobuloplasty

Dear Editor,

Torn ear lobe surgeries need great precision due to small size, less working space and cosmetic concern. Skin incision by surgical blade causes bleeding which obscures the field and reduces precision. Control of bleeding is cumbersome for the surgeon because of the small size of lobule, lack of support and firmness. Repeated attempts for haemostasis traumatises the tissues and ultimately causes adverse effects on wound healing and cosmetic outcome. Various methods to control bleeding in ear lobule surgery are - epinephrine infiltration, electrocautery, haemostatic clips and key chain method.[1]

In medical field, laser is being used for photocoagulation of retina, in fields like dentistry and oral surgery, dermatosurgery, etc. The various lasers used include CO_2 laser, Neodymium: Yttrium Aluminium Garnet (YAG), Holmium: YAG, Erbium, Chromium Doped Yttrium Scandium Gallium Garnet, Neodymium doped Yttrium Aluminium Perovskite, Gallium arsenide (diode) and Argon laser. Diode laser has advantage of relatively low cost, small size, portable and ease to use.[2,3]

Suter *et al*. compared use of CO_2 laser and diode laser in the oral cavity. Both lasers showed almost equal advantages but CO_2 laser was associated with high intraoperative bleeding as compared to diode laser.[4]

A 38-year-old female presented with bilateral torn ear lobule [Figure 1]. Surgical repair was planned by Pardue method. We used diode laser of the frequency of 2.5 W and a wavelength of 850 nm [Figure 2] for skin incision instead of surgical blade [Figure 3]. Rest of the procedure was completed in a usual manner. It was noticed that the bleeding was very minimal, fine suture line was obtained, both surgeon and assistant were comfortable, time taken to complete the procedure was significantly less, use of epinephrine was avoided and dose of local anaesthetic was less [Figures 4 and 5]. The wound healed completely without any complications resulting in almost invisible scar [Figure 6].

We found various advantages of diode laser for skin incision-Sharp cutting edge allowing precise cut, better coagulation, instant sterilisation reduces bacterial load, less operative and anaesthesia time, minimum

Figure 1: Pre-operative photo of patient

Figure 2: Picture of diode laser console and probe used for skin incision

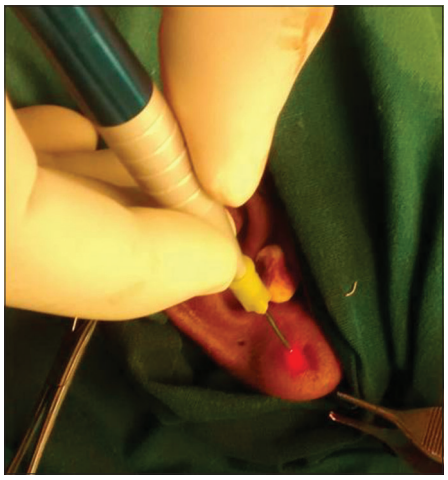

Figure 3: Intraoperative picture demonstrating laser being used for incision

Figure 4: Post-operative picture showing anterior layer repair

Figure 5: Post-operative picture showing posterior layer repair

Figure 6: Delayed picture showing good healing and almost invisible scar

discomfort to surgeon and assistant, better healing, less scarring. Use of laser in lobuloplasty is not described in literature our case demonstrates successful use of diode laser in lobuloplasty.

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Conflicts of interest
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Sandhya Pandey, Ravi Kumar Chittoria, Elan Kumar, Devi Prasad Mohapatra, MT Friji, Dinesh Kumar Sivakumar

Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India

Address for correspondence: Dr. Ravi Kumar Chittoria, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry - 605 006, India.
E-mail: drchittoria@yahoo.com

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