

PeriAcryl® cyanoacrylate dressing as a helpful adjunct in implant surgery

Surgeons are always looking for ways to predictably maintain primary closure, to reduce suture migration during cutaneous wound closure, and to keep membranes and graft material intact during clot formation and epithelialization. PeriAcryl® by GluStitch Inc is a product that compliments these surgical scenarios.

PeriAcryl® is a cyanoacrylate that is available in two viscosities – high and regular. It can be flash-set by applying saline to its surface. It is biologically compatible and has been tinted violet so that it is easy to visualize at the surgical sites.

I have seen the best results by routinely using PeriAcryl® for socket grafting, with or without immediate implant placement, and as a protection over sutures after tension free primary closure.

POST EXTRACTION AND IMPLANT PLACEMENT (SECONDARY UNION)

After an atraumatic extraction, guided implant placement and grafting the gap, a collagen plug is placed over the implant and graft. We clean the blood, saliva, and loose particles of graft material and lightly dry the surgical site. Next, 4-5 drops of PeriAcryl® regular viscosity are dispensed into a disposable well and drawn up into a pipette. Selective placement, using a single droplet at a time, is placed along the border of the surgical site, working from the highest portion of the wound down towards the socket. This allows gravity to assist with the application. A saline soaked cotton swab may be used to set the adhesive; again, starting at the highest section of the wound. Once the entire wound has been covered with PeriAcryl®, a wet finger or cotton gauze can be used to apply light pressure and set the remaining adhesive at the surgical site. No sutures are needed in this clinical scenario to assist in holding the collagen plug. Three to four days post surgery, whatever remains of the collagen plug and the PeriAcryl® will have been exfoliated leaving granulation tissue covering the extraction socket.



Pre treatment



Day of surgery facial view



Palatal view



1 week follow-up

APPLICATION DURING PRIMARY UNION

Healing by primary intention is a critical aspect of soft tissue reconstruction. This process should be rapidly achieved with the least amount of complications to be successful. Once two wound surfaces have been appropriately approximated with tension free suturing and stabilized with supporting sutures, PeriAcryl® can be applied as a secondary seal to protect the surgical soft tissue. This layer of adhesive helps minimize bacterial infiltration, enhance wound closure, and minimize suture migration. Five to ten days post surgery you will find that a small amount of the PeriAcryl® may still be connected to the sutures. In this case, it should be removed to allow for granulation tissue to mature and for the soft tissue to strengthen.



Pre surgery



Day of surgery



Two week follow-up and suture removal



1 month follow-up

We find that there are other more complex applications for PeriAcryl®, such as in dermal, connective tissue, and free gingival grafting (at donor and recipient sites) as well as in multi-unit crown lengthening surgeries. Using PeriAcryl® as an adjunct to conventional wound closure techniques provides an upside for healing and long-term patient care.



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