
AUTOLOGOUS PLATELET RICH PLASMA IN FACIAL PLASTIC SURGERY

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PURPOSE

The purpose of this study is to evaluate the author's clinical experience with autologous platelet-rich plasma (platelet gel) in 250 consecutive facial plastic and reconstructive surgery cases.

BACKGROUND AND METHODS

Surgical applications in the current review are limited to facial procedures including aesthetic surgery (skin resurfacing, blepharoplasty, facelift, forehead lift, cervicofacial liposuction and rhinoplasty) as well as soft tissue and bony reconstructive surgery. Platelet gel is a platelet-based wound sealant or hemostatic agent that uses a high concentration of platelets and a native concentration of fibrinogen harvested by centrifugal separation of autologous whole blood. Platelet gel has characteristic components that include an array of cytokines and mediators that increase recollagenation, accelerate epidermal and epithelial regeneration, promote angiogenesis, enhance wound strength, hasten hemostasis, improve tissue regeneration, decrease dermal scarring and facilitate remodeling. Competing proprietary centrifugal systems for creating platelet gel are reviewed with respect to efficacy, cost and ease of use.

RESULTS

Autologous platelet gel significantly reduces intraoperative bleeding and oozing, minimizes bruising, decreases postoperative pain, speeds healing and hastens reepithelialization in laser skin resurfacing. Centrifugal methods achieve a 4 to 5 fold concentration in platelets and associated cytokines. Patient recovery times are reduced 25-40%. Patient acceptance levels are high.

CONCLUSIONS

Autologous platelet rich plasma is an important adjunct to accelerate healing and speed recovery in patients undergoing facial plastic and reconstructive surgery.