Rhinoplasty revision with dorsal augmentation by using PRF and temporalis fascia: case report

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Background: Platelet rich fibrin (PRF) provides better healing, hemostasis, less pronounced edema and lesser resorption of the autologous augmentation material. The aim of this case report is to present a patient undergoing the 2nd revision rhinoplasty, after unsatisfactory results regarding function and esthetics. Case report: A middle-aged women, who had previously undergone rhinoplasties on two occasions in an external institution, presented with nasal dorsum irregularities, lower nasion, rocker deformity, bilateral internal and external valve insufficiency and acute nasolabial angle. The functional problem was solved by using bilateral spreader grafts and lateral crural strut grafts shaped by previously harvested septal cartilage. The reinforced lateral crura were separated from the hinge area and placed in the previously dissected alar rim pockets. The ptotic tip was reinforced by using an ANSA banner graft. The desired tip width, rotation and tip defining point position was achieved by domal creation sutures, interdomal sutures and tip position suture. Since the patient had an extremely thin skin, no tip refinement graft was used. Dorsal irregularities were to be addressed by using minor hump removal, fine drilling of residual irregularities with a diamond burr and camouflage on lay graft composed of previously harvested temporalis fascia with platelet rich fibrin matrix placed between the fascia and skin-soft tissue envelope. The patient has undergone regular follow ups since, reporting an improved function as well as a satisfactory esthetic result. Physical examination has shown normal nasal patency, uninterrupted brow tip line with smooth contours of the dorsum and normal nasolabial angle. Discussion: By reviewing the literature, most authors recommend PRF application as an addition to the diced cartilage camouflage graft for dorsal irregularities, showing superiority compared to the temporalis fascia, in terms of better healing, lesser edema, lesser resorption and smoother contours. In our case we decided to use temporalis fascia and PRF only, since the patient had an extremely thin skin, numerous minor irregularities and a lack of septal cartilage left for harvesting. It has provided a satisfactory result both subjectively and objectively upon follow up examinations by the surgeon.

Key words: revision rhinoplasty, platelet rich fibrin, dorsal augmentation, temporalis fascia