Safety and efficiency of Water-jet assisted dissection in SMAS Lifts

Abstract

Introduction:
Understanding and anatomically correcting the changes of fat distribution during the ageing process is fundamental to facial rejuvenation. Two dominant components are quite consistently changing during the facial ageing process:
The loss of facial volume in the midface/Malar area leading to midface deflation and volume gain in the lower face/neck. In our study we assess the safety and efficacy of Water-jet Assisted Liposuction not only for facial fat harvesting, but as well as dissection method for the Facelift component of a combined rejuvenation approach.

Material and Methods:
A single surgeon case series of 20 consecutive cases has been operated in IV sedation using Water-jet assisted facial skin flap dissection and facial fat harvesting for face-to-face lipotransfer. In cases with a predominant deflation component without facial/neck fat available for harvesting the technique has been used only for facial flap dissection and the fat has been harvested form a different donor side.

Patient discomfort, hematoma and swelling have been evaluated by two plastic surgeons intraoperatively, 24 h, 1 week, 4, 8 and 12 weeks postoperatively. Aesthetic outcome has been evaluated at 12 weeks postoperatively.

Results:
The device could be used in deep IV sedation without causing discomfort in the sedated patient. Intraoperative bleeding during facial dissection with facial scissors after Water-jet assisted flap dissection was reduced compared to sharp scissor dissection only. Skin flap thickness could be modulated very efficiently using the suction component of the device in preselected facial areas.

Postoperative bruising and hematoma was judged as minor in all cases in comparison to sharp facial dissection with prior injection of Klein´s Solution only. Aesthetic Outcome was judged as comparable with sharp dissection.

Conclusion:
Water-Jet assisted facial dissection is a safe and efficient method for facial flap undermining and concordant fat harvesting for integrated facial rejuvenation.