

MEETING ABSTRACT

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Regenerative potential of lipofilling on skin aging

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Background

Features of skin aging are progressive cell and extracellular matrix atrophy. Subcutaneous fat plays a key role in it. Recent studies have proved that the vascular-stromal component of adipose tissue is a rich reserve of regenerative cell precursors able to release angiogenic and antiapoptotic growth factors that stimulate cell differentiation [1]. Thanks to the presence of stromal stem cells, the adipose tissue can now be considered an ideal biologic product to biostimulate and correct defects of the face and body. The authors present their experience with the application of lipofilling to rejuvenate the skin envelope of the face and the hands.

Materials and methods

Between 2005 and 2009, 50 patients have been treated with the lipofilling technique at the Department of Plastic and Reconstructive Surgery of the University Hospital of Palermo. Ages ranged between 23 and 58 (mean 40). 10 patients were males and 40 females. In all cases the Coleman technique has been used. The fat harvested by lipoaspiration was centrifuged at 3000 rpm for 5 minutes for purification. In 45 cases lipofilling was used to rejuvenate the skin envelope in 2 surgical stages. In 3 cases for hand rejuvenation in one stage.

Results

A consistent improvement in skin quality has been obtained both in the face and in the hands, together with restoration of normal contour and improvement in skin elasticity and colour with satisfactory cosmetic outcomes in all patients. Fat resorption was observed to vary between approximately 20 and 40% depending on the defect to be corrected and on the degree of skin aging. Oedema, bruising and hematomas are the sequelae that ensue on the early postoperative period and

resolve within 4 weeks, either spontaneously or with the aid of bioflavonoids or Arnica.

Conclusions

Lipofilling can be considered a useful adjunct in skin rejuvenation of the face and body and is also an ideal material to model, improve, repair and regenerate tissues with the added value of regenerative, rather than only filling, properties.

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Reference

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