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Stem Cells in Aesthetic Procedures

Art, Science, and
Clinical Techniques

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27.1 Introduction

Through the years, facelift has undergone an evolution in concepts and techniques. It has gone from the skin only procedure to the subcutaneous musculoaponeurotic system (SMAS) facelift, from the subperiosteal to the endoscopic facelift, from fat grafting alone to the short scar procedure to the current most common techniques which include some sort of volume enhancing procedure (fat grafting) along with some variations of tissue repositioning procedures, either through a classic SMAS or through plication techniques.

As the concepts are more philosophical in nature and adopting them does not influence our results, techniques do. Plastic surgery is a result-driven specialty, and if the technique does not deliver the promised result, it is short-lived. It may be in fashion for a year or two, but eventually it is abandoned. It has been true for the subperiosteal approach, the midface suspension through the subciliary approach, and other similar procedures where the common denominator was too long of a recovery time and risk of complications for too little gain.

There is an important distinction to make between our current facelift concepts and how to achieve them. There is almost universal consensus

that one of the most important features of the aging face is deflation and loss of volume, along with relaxation of facial tissues and aging skin changes. And this concept is definitely an evolution from just a decade ago where repositioning of tissues was the main goal of facelift surgery. The focus was then more in which direction pulling the tissues, horizontal vs. superolateral vs. vertical and at which depth doing it, then concerns about volume loss.

Gradually the emphasis shifted to volume-enhancing techniques, and suddenly, in the last few years, fat grafting has become the technique of choice. Some surgeons have chosen fat grafting alone as their preferred facial rejuvenation procedure, but, in the opinion of the author, the relaxation of the skin and other tissues are not addressed, and too often postoperative patients look like they just gain weight rather than looking younger.

To be successful, an ideal facelift technique should have the following characteristics:

1. Deliver a natural result
2. Have a reasonably short down time
3. Minimize complications
4. Be easy reproducible
5. Have an acceptable longevity
6. Be applicable (with some variations of sort), in most patients of different age groups, type of skin, race, and body habit

Also it is almost universally accepted that there is not one technique that should be used for everyone. Any facial rejuvenation procedure should be tailored according to each patient. For example, an aging Asian patient with a fuller face is more a candidate for repositioning tissue