

Hyaluronic acid with long-term effect

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Introduction

Due to patients increasingly refusing to take longer absences from work, there has been a constant change in the field of aesthetic medicine towards minimally invasive interventions. These include: the use of augmentation procedures, botulinum toxin A, peeling, laser systems, Aptos threads, small operative corrections, and the application of the appropriate external treatments. Through the individual combination of these procedures, optimal concepts can be worked out for the patient over several years, which can cumulatively give the same result as would previously have been achieved by large surgical operations. In the course of the aging process, the therapy steps which are necessary for each specific situation can be applied, without creating a final situation for the patient, e.g. invasive surgical procedures. The patient can meet the aging process with constantly improving therapies. Therefore, it is necessary for the responsible doctor to master all operation techniques in order to give the patient the optimal advice for the respective situation. However, even minimally invasive methods can have side-effects and counter-indications, which are taken into account in individual cases and as such need to be extensively explained.

Fillers in comparison

Despite the fact that fillers have now been in use for decades, and despite many new developments in this sector, it seems that the ideal substance has not yet been found. The permanent fillers with polyacrylate components have become increasingly controversial over the past few years due to the appearance of granulomas. Bovine collagen and pure hyaluronic acid are largely unproblematic in application and in regard to the rate of complications. Obviously, an allergy test is necessary when bovine collagen is to be used.

The disadvantage of hyaluronic acid lies in a short to very short duration of its effect. In application tests with profilometric evaluations we saw an approximate effective duration of only three to four months with hyaluronic acids of the first and second generation. In the past few years there has thus been an almost unmanageable number of "new hyaluronic acids". On the one hand, there was often no visible advantage, and on the other, the risk originating from added ingredients was increased. In previously known hyaluronic acids a moderate to medium cross-linked portion was suspended in a non-cross-linked hyaluron acid, in order to make the substance injectable. The latest developments have made it possible to inject a highly cross-linked hyaluronic acid even without suspension.

Hyaluronic acid with long-term effect

The sales market for hyaluronic acids with over 60 preparations is confusing, and is almost impossible for the individual user to understand. Frequently, it is especially difficult for the doctor to recognise whether a "new" hyaluronic acid has really been created by an innovative production technique or the company has simply changed its name.

Permanent fillers and in particular the polyacrylate fillers of the leading companies are increasingly critically regarded due to the risk of granulomas. Therefore, the development of a new hyaluronic acid with a long-term effect and a good safety profile is an important part in the field of fillers. In general, nodules and hardenings are caused by incorrect injection techniques and are not histologically granulomas. Here, a therapy can be carried out with an intranodal injection of hyaluronidase. The use of steroids with an accompanying risk of atrophy is not necessary.

Overall, Varioderm® (from Adoderm) has proven in tests to be an innovative hyaluronic acid with good volume effect, good adaptation to the tissue, long-lasting augmentation and a good safety profile. Multi-centre post-approval studies under standardised

conditions should take place to enable objective assessment, and such tests have been initiated by the manufacturer.

Clinical use

The new filler Varioderm[®] was used from April 2006 to June 2007. In total, 34 patients with the most varied of indications were treated. The indicated depths were subcutis and deep dermis. We used a 26G needle as an injection cannula. The subcutaneous injection of Varioderm[®] was mostly carried out for the treatment of deep nasolabial marionette wrinkles. The injection pressure was pleasant and immediate reactions such as swellings, reddening and pain were either minimal or not present. The pronounced volume effect and the good adaptation to the tissue were striking, so that even very defined wrinkles were augmented. No complications occurred in the short-term or after three, six or nine months during check-ups. The treatment effect generally lasted nine months.

In the area of the middle dermis and the treatment of lips, the injection (Varioderm[®]) was carried out with a 30G needle. The injection was also technically simple. A slightly increased local inflammation reaction was noticed, which was more pronounced in individual cases, especially in the augmentation of lips. Medium-term complications only occurred with a single patient. Four weeks after the treatment of nasolabial wrinkles inflamed alterations of the skin appeared, which receded after the injection of hyaluronic acid in two sessions. It was noticeable with this patient that multiple previous treatments had been carried out. The use of permanent fillers was therefore denied. Otherwise, the treatment showed a high level of safety. The augmentation effect was shorter than with Varioderm[®] subcutaneously, but the patients treated still showed a clear augmentation after six months.

Varioderm[®] Fineline was injected superficially (upper dermis) with a 30G needle. While there was a stronger local reaction, Varioderm[®] Fineline was also used for the augmentation of lips. It was noticeable here that in comparison to other fine line preparations there was a distinctly increased injection pressure, which was improved with later injections. Some patients initially showed an increased inflammation reaction but this disappeared completely within one to two hours. Adaptation to the tissue was very good and sufficient treatment of wrinkles was possible in the perioral and in the periocular region. The effect of the treatment lasted approximately four to five months.

Summary

The first results with the new product are promising, but multi-centre monitoring under standardised conditions should take place for the purpose of objective assessment. Such tests have been initiated by the manufacturers.

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