

# Comparison of a new hyaluronic acid filler containing with and without Dextranomers (50 mg/1ml) to established and leading hyaluronic acid filling products

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## Introduction

Numerous new fillers enter the market, however only few have been tested for efficacy and side effects compared to established products. It is increasingly different for physicians to decide if a new product can use be used or not. This comparison study was designed to answer this question for a new hyaluronic acid filler containing new kinds of dextranomers.

## Materials and methods

A total of 10 female patients (age 39 – 67) with nasolabial folds were treated in a split face study with a new filler containing 16 resp. 17 mg / 1 ml Hyaluronat crosslinked either with 25 mg dextranomers or without on the right side compared to a hyaluronic acid based filler with 20 mg hyaluronic acid without dextranomers on the left side. Dextranomers were of regular spherical shape and smooth surface with a surface charge of positively beads in order to prevent granuloma or foreign body reaction and a size > 40 microns in order to prevent early phagocytosis.

## Results

Histological examination showed after 6 month 100% of the beads still present and intermaterial small collagenous fiber bundles (1 to 10µm) after 12 months, 40% and extensive fibroblast and collagen in intermaterial space with complete absence of neutrophilic or lymphocytic infiltrate and no beads detectable after 24 months. The clinical result immediate after injection was similar, the longevity of the result showed a longer duration of the filling effect for the dextranomer containing filler of 1.5 months in average. Side effects such as stinging, palpable induration or irritation was seen for both filling substances in 2/ 10 patients but resolved after 2 weeks..

## Discussion

Results and acceptance were equal to established fillers but dextranomers may help to achieve a longer lasting result. Acceptance of the patients was similar for both.

Dextranomer initiate fibroblast activation and tissue augmentation for a limited period of 2-6 months, then they are entirely absorbed.

