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Immunological aspects of the use of low molecular weight hyaluronic acid in mesotherapy

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Mesotherapeutic procedures with hyaluronic acid have become more popular. We observed 50 subjects who had this procedure for the first time, and who were assessed before, after, in 3 and 6 months after the course. Mesotherapy was carried out in a course of 5 procedures with an interval of 14 days.

We studied the determination of the expression of CD3, 4, 8, 16, 19, 25, 95 lymphocytes, the intracellular content of FoxP3 and granzyme B, the expression of TLR2, TLR4, TLR9 on peripheral blood monocytes. The oxygen-dependent metabolic activity of neutrophils was assessed in the NBT test, the level of IgA, IgM, IgG, the level of IgE, as well as total bilirubin, alkaline phosphatase, aspartate aminotransferase, alanine aminotransferase, total protein, thyroid hormones.

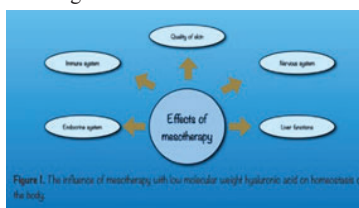
After the course the dermatological index showed changes for the better in the quality of life, objective clinical data as well as dermatoscopy revealed improvements in the skin condition.

Immunological indicators: the processes of maturation and cytotoxicity of T- effectors are enhanced with inhibition of the microbicidal activity of neutrophils, a tendency towards a decrease in the helper activity of lymphocytes, the processes of early activation increase. The endocrine system: a decrease in TSH. Hepatocytes: a decrease in the content of total bilirubin, transaminases, alkaline phosphatase.

After 3 months: functioning of the immune system - a restoration of the adaptive reserves of neutrophils; an increase in the helper function of lymphocytes, normalization of the immune-regulatory index, a moderate decrease in the content of T-regulatory lymphocytes with suppressive effects. Liver, endocrine system, emotional state - no changes.

After 6 months: an increase in the number of lymphocytes with helper activity with a simultaneous inhibition of the cytotoxic effect, and an increase in the functional activity of neutrophils with a decrease in the adaptive reserves of neutrophils.

Liver, endocrine system, emotional state - no changes.



Biography

Alexandra Sergeeva is an experienced specialist with excellent knowledge of cutting-edge technologies in modern dermatology and cosmetology. She is an expert in such areas as various facial procedures, mesotherapy, thread lifting, face contouring, laser, botulotoxin, IPL therapy and many others. Her desire to master the skills constantly has led to becoming a certified GP with aesthetic privilege in one of the most famous clinics in the UAE. In particular, she is eager to research the influence of injection procedures in cosmetology on functioning of the immune system.

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