

## The role of injectable collagen therapy in palliative medicine

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The cancer process accelerates the aging of cells, resulting in, among others, disorders in the protein system. Emerging collagen deficiency leads to damage to the connective tissue structures of fibrous skin, subcutaneous tissue, ligaments, tendons, fascia and muscles. Disturbances in the structural integrity and elasticity of the connective tissue contribute to an increase in pain sensation, a decrease in tension, the formation of wounds and ulcers.

The use of oral collagen in cancer patients is debatable. Collagen produced by cancer cells differs in structure from normal collagen and can affect the immune response of the body and affect the progression of cancer.

It has dual activity both inhibiting and promoting tumor progression at various stages of its development.

Regardless of stage, it is safe to use collagen by injection techniques. In the presented case tropocollagen was used in injections technique in a 77-year-old patient with massive keloids after surgical stabilization in the C5-Th2 section is presented. Root pain syndrome occurred with reduced mobility and increased muscle tone.

Palliative patients often experience degenerative pain with muscle overload, damage to the tendons and

joints as a consequence of constant pressure. Injections of tropocollagen in the vicinity of overload changes accelerate the regeneration of extracellular matrix tissues (ECM) at the molecular level. Tropocollagen can be administered in the form of periarticular subcutaneous or fascial injections.

A beneficial effect is obtained when the collagen preparation is administered in the direct (if anatomically possible), proximity to the pain receptors (receptor sites), or acupuncture points. Collagen therapy may be the only form of therapy or component of multimodal treatment.

### References

1. Mazurek K, Siemianowicz K, Likus W, et al. Collagen Type III Metabolism Evaluation in Patients with Malignant Head and Neck Cancer Treated with Radiotherapy. *Biomed Res Int* 2018; 2018: 8702605, DOI: 10.1155/2018/8702605.
2. Rømer AMA, Thorseth ML, Madsen DH. Immune Modulatory Properties of Collagen in Cancer. *Front Immunol* 2021; 12: 791453, DOI: 10.3389/fimmu.2021.791453.
3. Wang H. A Review of the Effects of Collagen Treatment in Clinical Studies. *Polymers (Basel)* 2021; 13: 3868, DOI: 10.3390/polym13223868.