

# Abstract

Healing of skin injuries is a complex physiological process that involves interaction of large numbers of activated cellular and enzyme systems. It follows a relatively simple scheme; however, the system control is complicated. The length and quality of healing is influenced by outer and inner factors resulting from the knowledge of physiology and pathology of injury healing.

Healing of skin injuries is divided into stages that often time overlap. However, at certain stages the healing processes reach their tops and they become for that period characteristic.

MDOC<sup>TM</sup> (polyanhydroglucuronic acid) is used in the clinical practice mainly to speed up the haemostasis. This diploma work is concerned with its effect in two types of remedial products, i.e. gel and nano textile prepared in accordance with the original patented method. The work focuses on how the products influence healing of injuries with 29 animals (1 cat, 21 dogs and 4 horses). In detail it describes the effect on healing processes of horses.

With all the animals observed, regardless of the type, breed and/or age, the defensive inflammation of the second healing stage goes on faster, however, it also wears off more quickly. Both macroscopic and microscopic monitoring of the skin defect healing proves that using the MDOC<sup>TM</sup>-based remedial product speeds up and improves the quality of injury healing.

Another finding of great significance is that the skin injury heals faster when using the gel without the presence of antibiotics.