Morphology of skin connective tissue in Wistar rats subjected to scalding burn

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Scalding thermal burns may cause catabolic processes in the organism to repair the lesion area. Those injuries are one of the most common burns in the skin. The occurrence of this event is characterized by a wound healing that commonly changes the morphology of the skin layers. The purpose of this study was to evaluate qualitatively the morphology of the skin connective tissue. Young rats with 30 days old had the dorsum surface shaved and subjected to scalding thermal burn (STB). This procedure committed 30% of the total body surface. The control group (C) was only submitted to the process of dorsum surface shaved. The rats were euthanized at the seventh day post injury. The middle part of the skin dorsum was stretched and tied in straight PVC to avoid artifacts. The samples were fixed in Bouin's fluid and then processed to routinely paraffin embedding. Serial 6 µm thick sections were stained with picrosirius and analyzed under light and polarized microscopic. The samples of skin subjected to STB revealed tissue thickness, and also disorganization on morphology of dermis and epidermis layers. In STB group were observed few samples of type III collagen represented by weak green color. The morphological analyses revealed that the C group maintained normal tissue architecture, with regular arrangement of collagen fiSTB cause important disarrangement of skin layers morphology, and also affected both types of collagen fibers.

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