

QUEST FOR THE HOLY GRAIL OF FORENSICS: IMMUNOHISTOCHEMICAL AGE ESTIMATION OF INJURIES

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Currently, the forensic age estimation of injuries is based on the rule of thumb about the vitality signs, the entry sequence of reactive cells, and the development of granulation and scar tissues. Supravitality, artefacts or the lack of controls, nevertheless, can make the assessment scientifically questionable, even without biases or “inter-observer variability”.

Out of the histological archive of our Department, several cases have been subjected to immunohistochemical stainings for specific cellular markers (CD45, CD68, CD34), for the markers involved in adhesion (ICAM-1, fibronectin) or in inflammatory signalling (TNF α , TGF β). For general orientation, all slides have been stained for haematoxylin-eosin and Prussian blue, as well. Our main area of interest lies under the “fibroblast-threshold” (<72 hours), especially in the initial period of the first three hours after the inflicted injury. This preliminary study aims to raise the question of utility of immunohistochemistry in the age estimation of injuries with different origin.

Keywords: *injuries; age estimation; immunohistochemistry*