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Application of Digital Radiography for Examination of the Calvarial Diploic Venous Channels in Intact Dry Skulls

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The diploic venous channels (DVCs) are tunnels in the *diploë*, between the outer and inner tables of the cranial bones. Because of its enclosed location, the diploic venous system is challenging to study. It has been claimed that the radiological examination provides a non-destructive, simple and accurate method to inspect DVCs. In this study, we tested the application of the digital radiography for investigation of the DVCs in intact dry skulls. A series of 345 intact skulls of contemporary adult males were radiographed using an industrial computed tomography. The digital radiography was applicable for visualization of the main DVCs in intact dry skulls, but showed some limitations due to the overlaying and difficult differentiation from the grooves for the middle meningeal vessels. The main shortcoming resulted from the superimposition of structures beyond the plain of interest and the impossibility to trace the complete pattern of DVCs throughout the cranial bones.

Key words: diploic veins, diploic venous channels, digital radiography, visualization