OPEN COMMINUTED EXPRESSED-DEPRESSED SKULL FRACTURE

Boban Jelenković¹, Vesna Nikolov¹-², Slavko Živković¹, Luka Berilažić¹, Predrag Milošević¹

¹Neurosurgery Clinic, Clinical Center Niš, Niš, Serbia
²University of Niš, Faculty of Medicine, Niš, Serbia

Contact: Boban Jelenković
Radoja Đakića 47a/3, 18000 Niš, Serbia
E-mail: bobanjelenko@gmail.com

Skull fractures occur as the result of the effect of kinetic forces and represent discontinuity of the bones of the skull. They can be opened and closed affecting tissues; linear, diastatic, comminuted affecting cranial level; or depressed ones often leading to injuries of meninx, brain tissue with different types of intracranial bleeding. The paper presents a 56-year old male patient who suffered severe craniocerebral injury of the frontal region including orbit while operating the wood processing machine. The injury manifested as scalp damage, expressed-depressed open fracture of frontal-orbital region with cerebrospinal fluid leak. Computerized tomography of the brain showed the presence of epidural, subdural, and intracerebral hematoma with mass effect. The injuries were surgically treated, hematomas evacuated, and skull defect was reconstructed by previous plasticizing the dura in order to stop cerebrospinal fluid leak. In the reconstruction of the multifragmentary fracture, a star titanium implant was used, but significant implantation of artificial material was not performed due to already contaminated wound and the possibility of a subsequent infection.


Key words: expressed-depressed fracture, frontal-orbital region, intracranial bleeding, defect reconstruction, cerebrospinal fluid leak