

Parkland's formula role in treatment of severe burn – Case report

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Abstract

Middle aged male with severe and extensive burns sustained after attempted suicide with ignited propane butane containing gas bottle was transported to emergency department of University Hospital Split after more than 12 hours since initial injury. Explosion and fire caused second and third degree burns to the patient on 70 percent body surface area. At the moment of admission, he was extremely aggressive, combat and uncooperative. It is important to emphasize that patient had no intravenous access, so author decided to apply midazolam, ketamine and atropine intramuscularly. After patient was in general anaesthesia, central venous access was established via left subclavian vein and immediate crystalloid infusion therapy was initiated. According to Parkland formula, volume of crystalloid replacement should be 25200 mL during the first 24 hours. Since more than eight hours passed from the time of injury, fluid deficit was theoretically more than 8400 mL. During initial treatment and 3 hours surgery, patient received 5500 mL of Plasma-Lyte solution. He was treated in intensive care unit for a prolonged period of time, and complicated with multi-resistant *Acinetobacter baumannii* infection. Finally, Parkland formula remains basic tool in burn fluid resuscitation. Our intention was to present an interesting case of middle-aged patient with extensive burns, whose care was complicated with aggression at admission, lack of intravenous access and a prolonged period between initial injury and start of hospital treatment. These greatly complicate treatment, patients' recovery and overall morbidity and mortality.

Biography

Bozidar Duplancic has completed PhD in 2019 from University of Zagreb, Croatia. He is assistant professor of anaesthesiology and intensive care medicine, University of Split, Croatia. Currently working as specialist of anesthesiology, reanimatology and intensive care medicine at University Hospital Centre Split, Split, Croatia. He has 9 publications that have been cited 158 times, and publication h-index is 6.

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