№ 065

Torn Apart, Held Together : Damage Control Resuscitation in a catastrophic Degloving Injury

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INTRODUCTION

Catastrophic chest degloving injuries with major vascular compromise are rare and life-threatening. This case highlights timely application of ***Damage Control Resuscitation (DCR)*** in stabilising critically injured trauma patient.

CASE DESCRIPTION

A 21-year-old male motorcyclist hits divider sustained right upper chest degloving injury with *exposed ribs, vascular bundle along with catastrophic bleeding*. He arrived to our Emergency Department *Hypotensive (BP 85/40 Mmhg), Tachycardic (HR 120) & Absent Right Radial Pulse*. Direct pressure reinforced with two combat gauzes until bleeding stops. Haemostatic resuscitation began with 4-units of Safe-O blood & Thawed-Plasma via Level 1 Rapid Infuser. Massive Transfusion Protocol (MTP) activated to deliver *8-units PRBC, 8-units FFP, 8-units platelets, and 8-units cryoprecipitate*. *Tranexamic Acid* 1g stat and *Calcium Gluconate* 30cc administered. CT-thorax withhold due to haemodynamic instability and maintained permissive hypotension. Surgical team was on board planned for definitive haemorrhage control & vascular repair.

DISCUSSION

DCR is a targeted trauma approach combining *Early Haemorrhage Control, Haemostatic Resuscitation, Permissive Hypotension & Damage Control Surgery*. Early haemorrhage control prevents **Lethal Diamond**: ***Coagulopathy, Acidosis, Hypocalcaemia, & Hypothermia*****.** Direct pressure with *kaolin-infused haemostatic gauze* is a first-line intervention for external catastrophic haemorrhage promoting rapid clotting. Patient with haemorrhagic shock; haemostatic resuscitation done using *Level 1 Rapid Infuser* to deliver *warmed Safe-O blood* and thawed-*plasma*, followed by early *MTP activation* with *balanced PRBCs, FFP, platelets, cryoprecipitate* to prevent dilutional coagulopathy. *Tranexamic acid* administration reduces fibrinolysis, clot breakdown while *calcium* supplementation prevents *Transfusion-Related-Hypocalcaemia*. Absence of right radial pulse raised suspicion of major vascular injury warranting further imaging but is withhold to haemodynamic instability. Permissive Hypotension and Damage Control Surgery helps achieve haemostasis and stabilise patient.

CONCLUSION

This case highlights critical role of **DCR** in managing catastrophic chest degloving injuries. We advocate consideration of early Haemorrhage Control, Haemostatic Resuscitation, Permissive Hypotension & Damage Control Surgery in tackling **Lethal Diamond Of Trauma** ensuring survival of patient.

REFERENCES :

1. Leibner, E., Andreae, M., Galvagno, S. M., & Scalea, T. (2020). Damage control resuscitation. Clinical and Experimental Emergency Medicine, 7(1), 5–13. https://doi.org/10.15441/ceem.19.089
2. Mills, J. D. (2024). Trauma Diamond of Death: Adding Calcium to the Lethal Triad. Journal of Emergency Nursing, 50(3), 330–335. https://doi.org/10.1016/j.jen.2023.12.011

Key Word : *Haemostatic Resuscitation, Damage Control Resuscitation, Lethal Diamond, Massive Transfusion Protocol*

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