Management of Military Vascular Injuries in Najran District of Saudi Arabian Kingdom: A Retrospective Study

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INTRODUCTION

- Military vascular injuries in combat casualties may be a challenging modality
- They require not only an experienced vascular surgeon but also an accurate and solid decision to gain time versus definitive repair (Rasmussen T, et al. 2018).

AIM OF THE STUDY

- To evaluate the outcome results for the management of military vascular injuries, that took place in Najran province of the Saudi Arabian kingdom.
- Furthermore, to report the survival rates following vascular repair in combat casualties, among treated soldiers.


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عمان
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PATIENTS & METHODS

- During a 5-month period, between August 2018 to January 2019, this study was performed
- It included 21 victims with military vascular trauma
- A thorough clinical evaluation, including vascular examination of different body regions, was performed.

PATIENTS & METHODS CONT.

- All victims underwent initial resuscitation according to the guidelines of Advanced Trauma Life Support (ATLS), proposed by the American College of Surgeons [ACS] (Merrick C, et al. 2018).
- In addition to the Military Trauma Life Support [MTLS] (Scope A, et al. 2001).

PATIENTS & METHODS CONT.

We reported the following:

- The type of vascular repair whether surgical or endovascular
- The administration of a hemostatic tourniquet
- The use of a temporary intravascular shunt

PATIENTS & METHODS CONT.

- we used the commonly performed type of

vascular repair by the administration of either

a) Interposition reversed great saphenous vein grafts or

b) A synthetic grafts

PATIENTS & METHODS CONT.

- However, the endovascular interventional technique was adopted for selected cases using either:

a) Covered-stent graft or,

b) Coil embolization

RESULTS

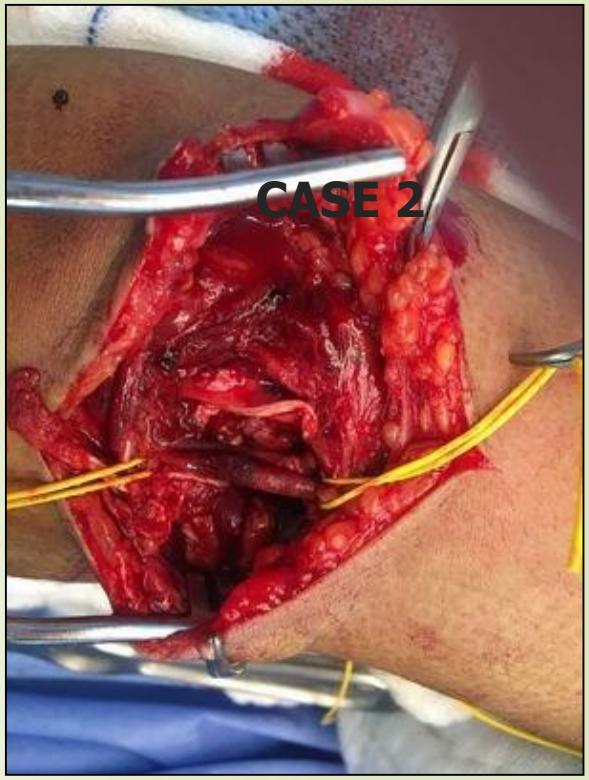
- All war-related victims were males (100%)
- Their median age was 25±6.4 years, ranging from 15-35 years old
- One victim was treated with a primary above-knee amputation due to severe crush injury, and massive limb laceration, with no hope of arterial reconstruction.

CASE 1
Crush injury both LowerLimbs. treated with primary above- the-knee amputation

RESULTS CONT.

CASE 2 **LT. Brachial A. INJURY**

- A reversed saphenous vein interposition graft was performed for 13/20 victims



Left brachial artery injury treated with a reversed interposition saphenous vein graft

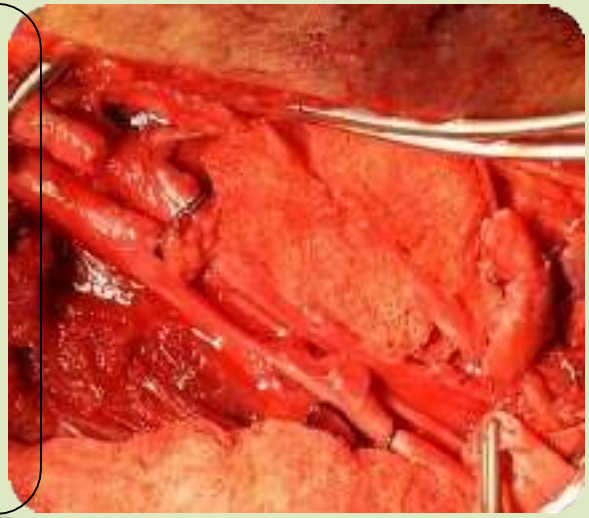
CASE 3
Firearm RT. Brachial INJURY

CASE 4
RT. AXILLARY A. INJURY

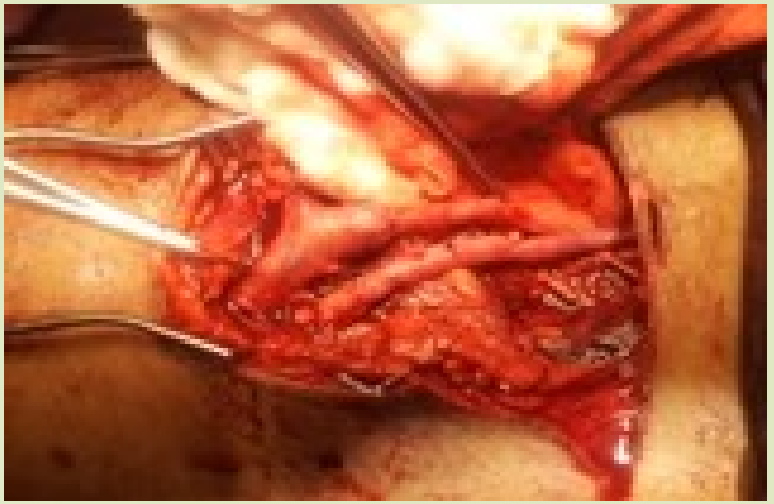
RESULTS CONT.

- A synthetic interposition graft was adopted for 3/20 victims

CASE 5
RT. Axillary A. INJURY



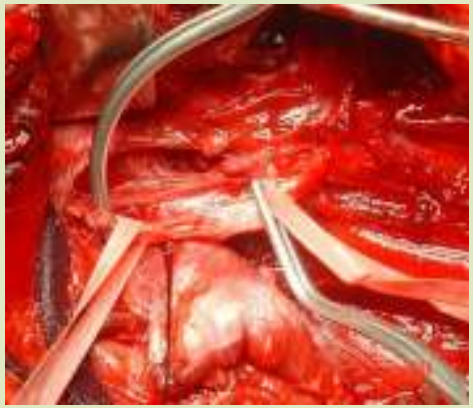
CASE 6 External Iliac A and V INJURY



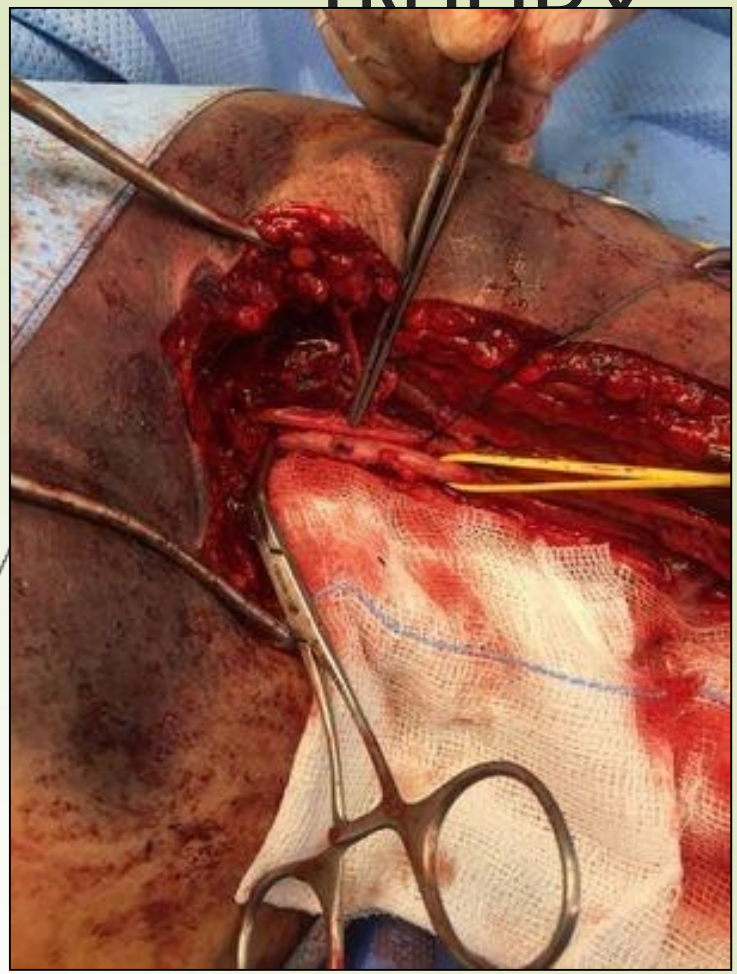
CASE 7
RT. SFA INJURY

CASE8
SFA INJURY



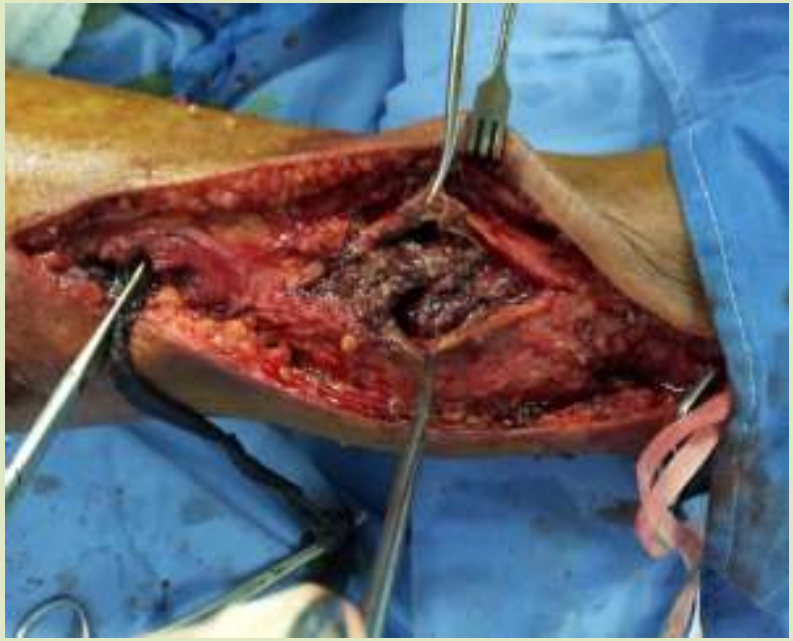



CASE 9
LT. POP A. INJURY

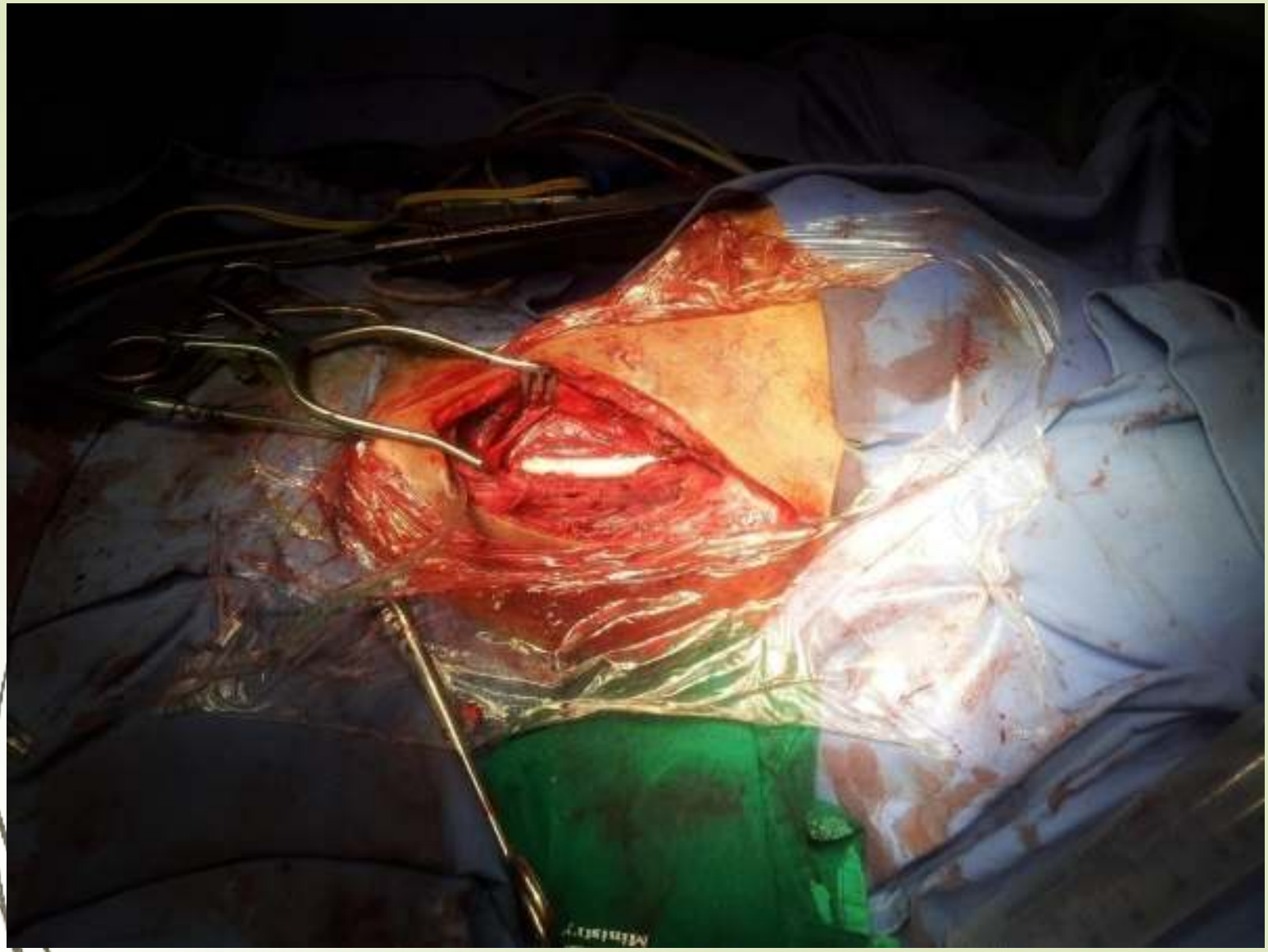


CASE 10
PTA
INJURY

- **CASE 11 PTA PSEUDANURISM**

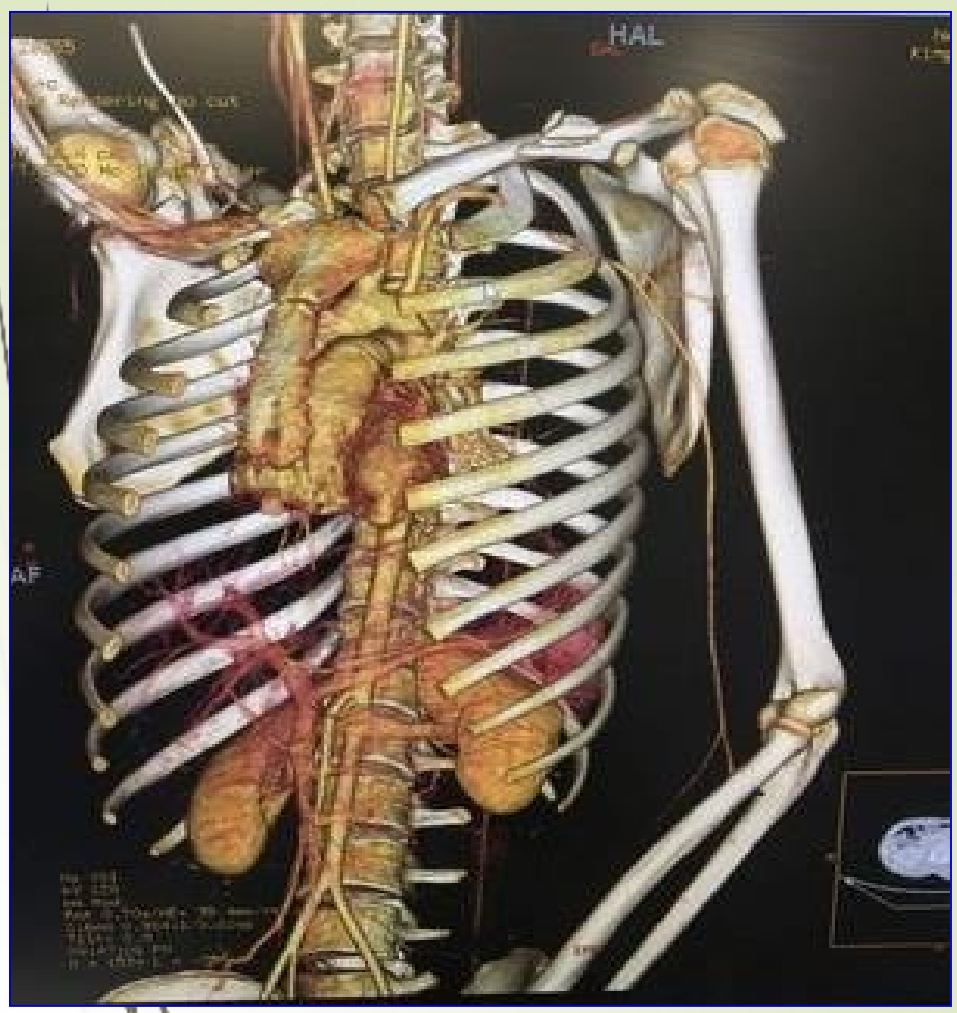


CASE 12
CAROTID ARTERY INJURY



RESULTS CONT.

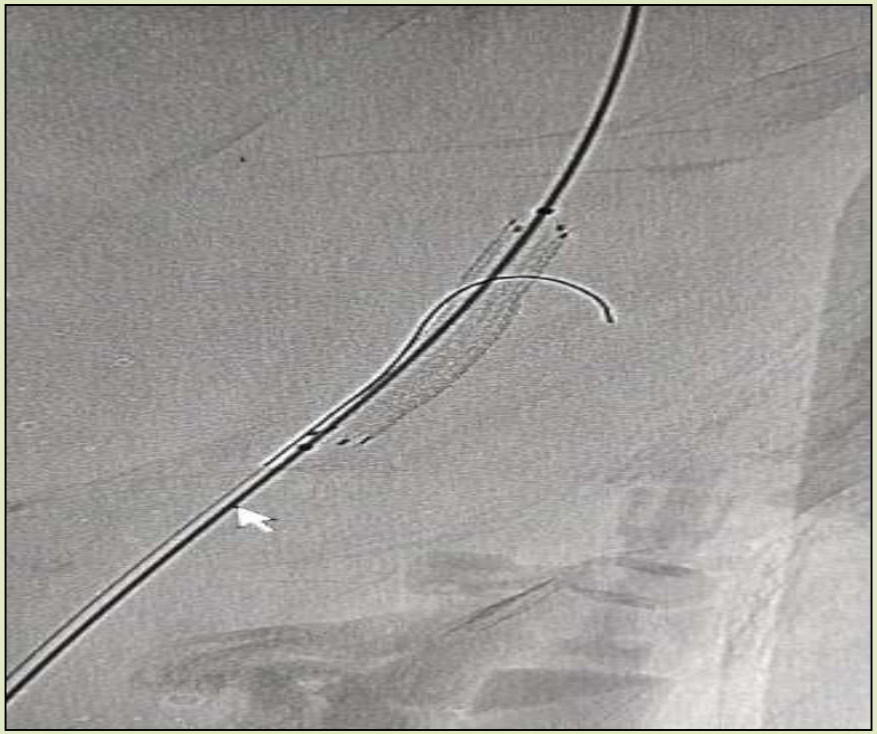
Endovascular therapy was performed for 3/20



CASE 13
LT. Subclavian A. INJURY

Covered Stent in place

CASE 14
RT SFA
INJURY



Covered Stent in place

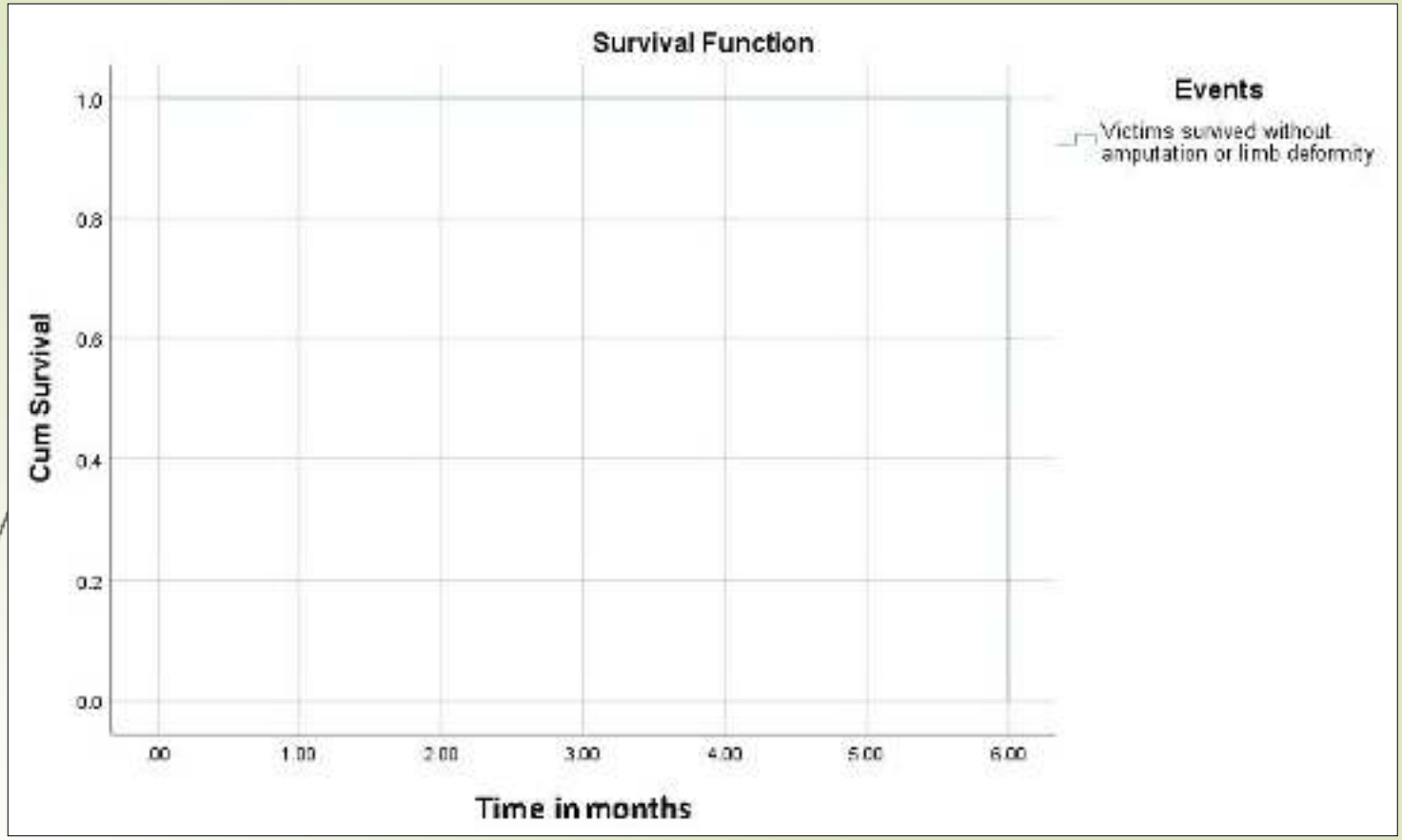
CASE 15
LT. Brachial INJURY

Stent-graft in place

RESULTS CONT.

- Prophylactic lower limb fasciotomy was performed for 2/20 victims.
- However, temporary intravascular shunting was reported in 5/20 victims.

Survival curve following surgical and endovascular repair after 6-months follow-up Using the Kaplan-meier survival analysis



CONCLUSIONS

- Treatment of military vascular injuries with the use of interposition reversed saphenous vein grafts/synthetic grafts are feasible and reliable, techniques with favorable results.

CONCLUSIONS CONT.

- Moreover, the use of endovascular therapy in vascular trauma patients especially in military-related vascular injuries became popular, and gained acceptance in recent years, despite not yet having a place in official guidelines.


Thank You