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**THE CHARACTERISTIC OF THE MAIN VESSELS' INJURIES OF THE
LOWER EXTREMITIES AND THEIR RESULTS OF TREATMENT DURING
JOINT FORCES OPERATION ON THE EASTEN OF UKRAINE**



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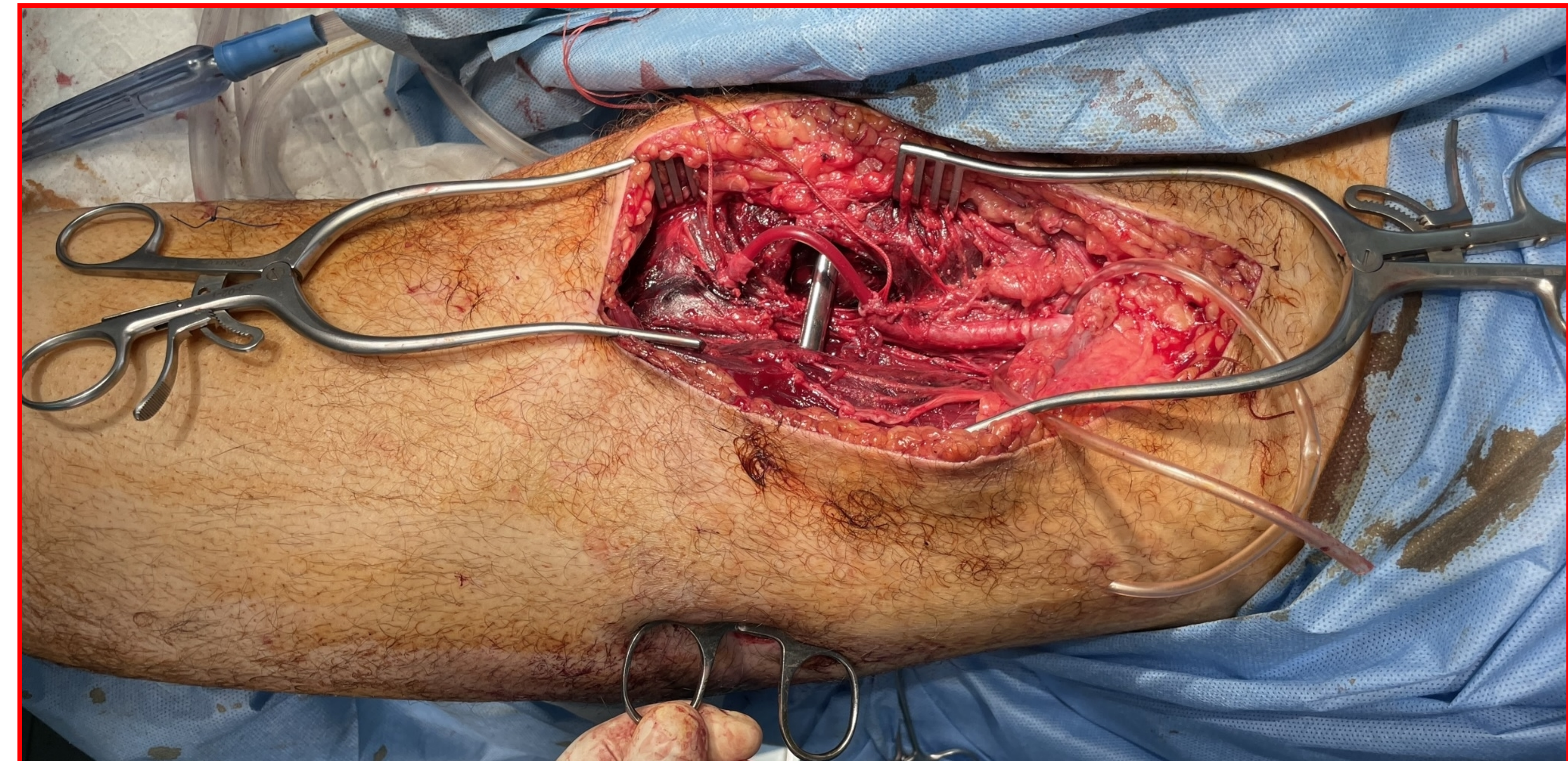
INTRODUCTION

Gunshot wounds (GSW) of the main vessels remain relevant and sophisticated sphere of vascular surgery both, in therapeutic and organizational way.



AIM

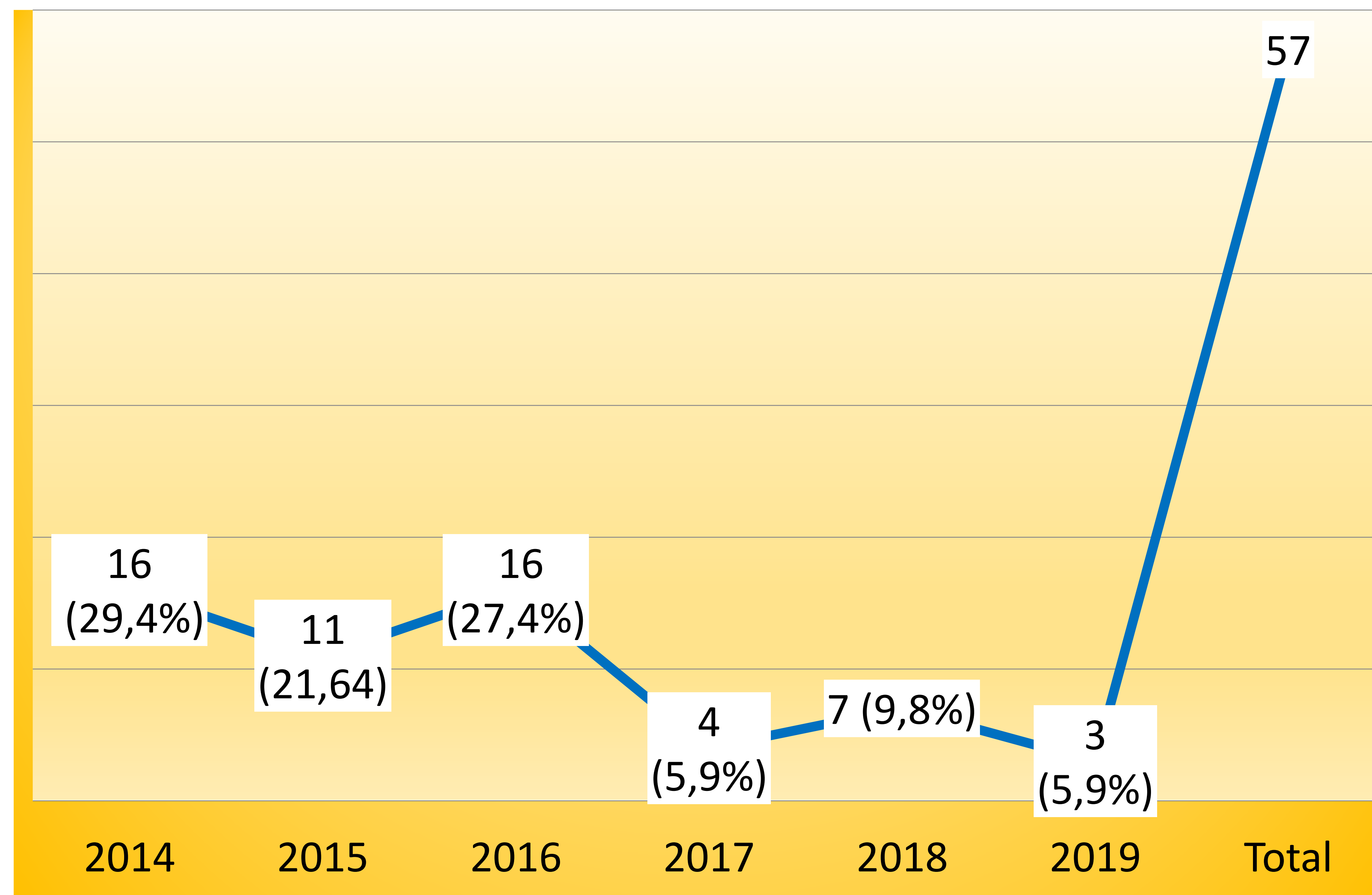
The purpose of the study is to analyse the character of the injuries, localization, concomitant trauma, results of treatment, and clinical outcomes in patients with injuries of the main vessels of the lower extremities during Joint Forces Operation (JFO) in the period from 2014 to 2019.



MATERIALS AND METHODS

We have analysed 57 cases of gunshot wounds of the main vessels of the lower extremities who have undergone treatment at our medical facility from 2014 to 2019.

ANALYSIS OF THE INJURIES PER YEARS IN THE STUDY



The amount of GSW were registered in 2014 was included 16 cases (28%), in 2015 – 11 (19,3 %); in 2016 – 16 (28 %); in 2017 – 4 (7,1 %); in 2018 – 7 (12,3 %); in 2019 – 3 cases (5,3 %).

In the study was included patients under 55 years old. The analysis of the age category showed: 6 cases (10.6%) – patients under 20 years old; 22 (38,6%) – from 21 to 30 years old; 17 cases (29,8%) – from 31 to 40 years old; 10 cases (17,5%) – from 41 to 50 years old; 2 cases (3,5%) – older than 50 years old.

MATERIALS AND METHODS

THE INCLUSION CRITERIA:

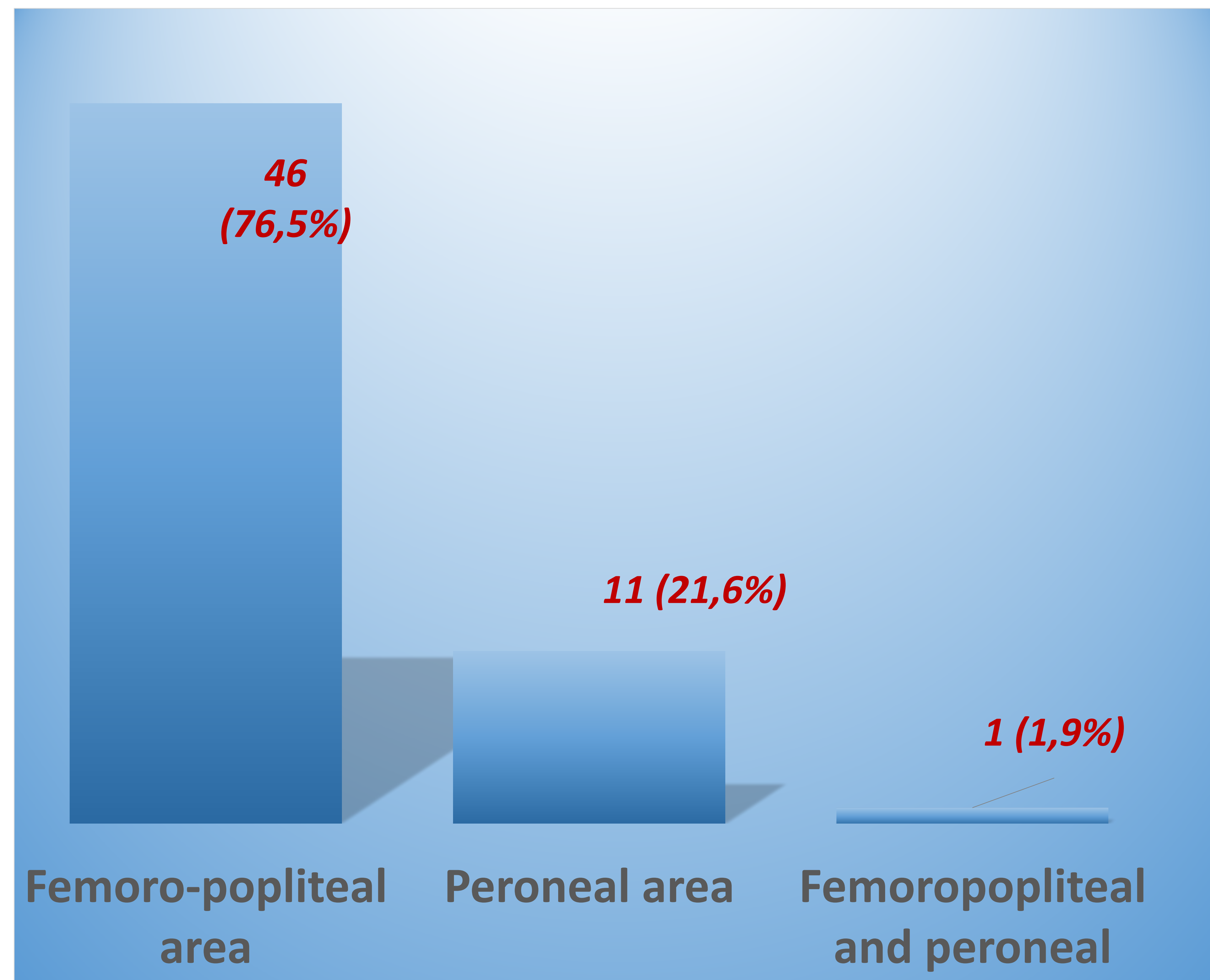
- Military servicemen of the Armed Forces of Ukraine;
- Patients who had non-lethal injuries;
- Patients who required interventions on the main vessels;
- Injuries of the main vessels;
- Males;
- Patients under 55 years old;
- Absence of the comorbidities.

THE EXCLUSION CRITERIA:

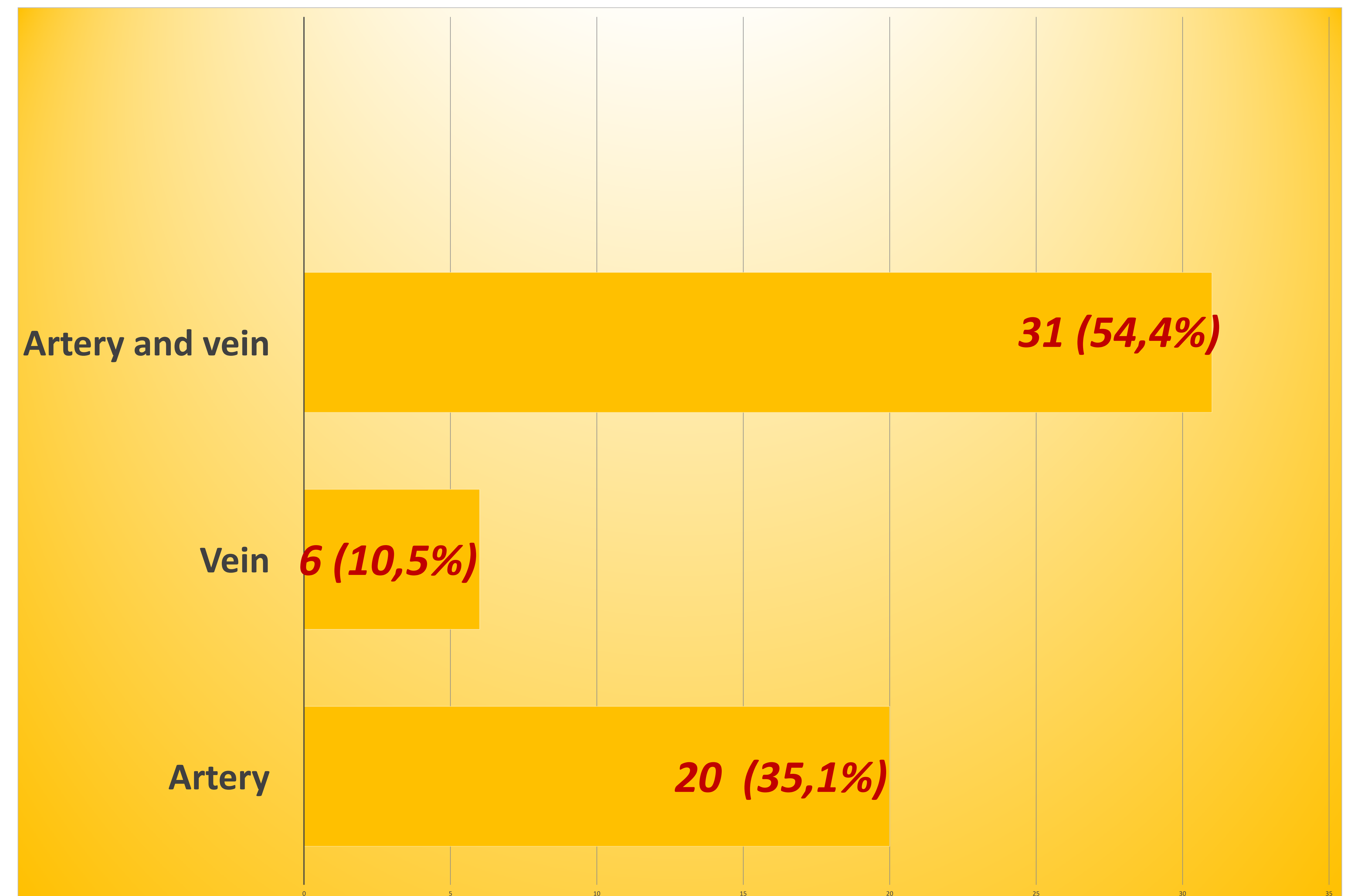
- All civilians with vascular injuries;
- Lethal injuries registered before evacuation to specialized vascular surgical assistance;
- Females;
- Patients over 55 years old;
- Presence of severe comorbidities.

RESULTS

THE LOCALISATION OF GUNSHOT WOUNDS



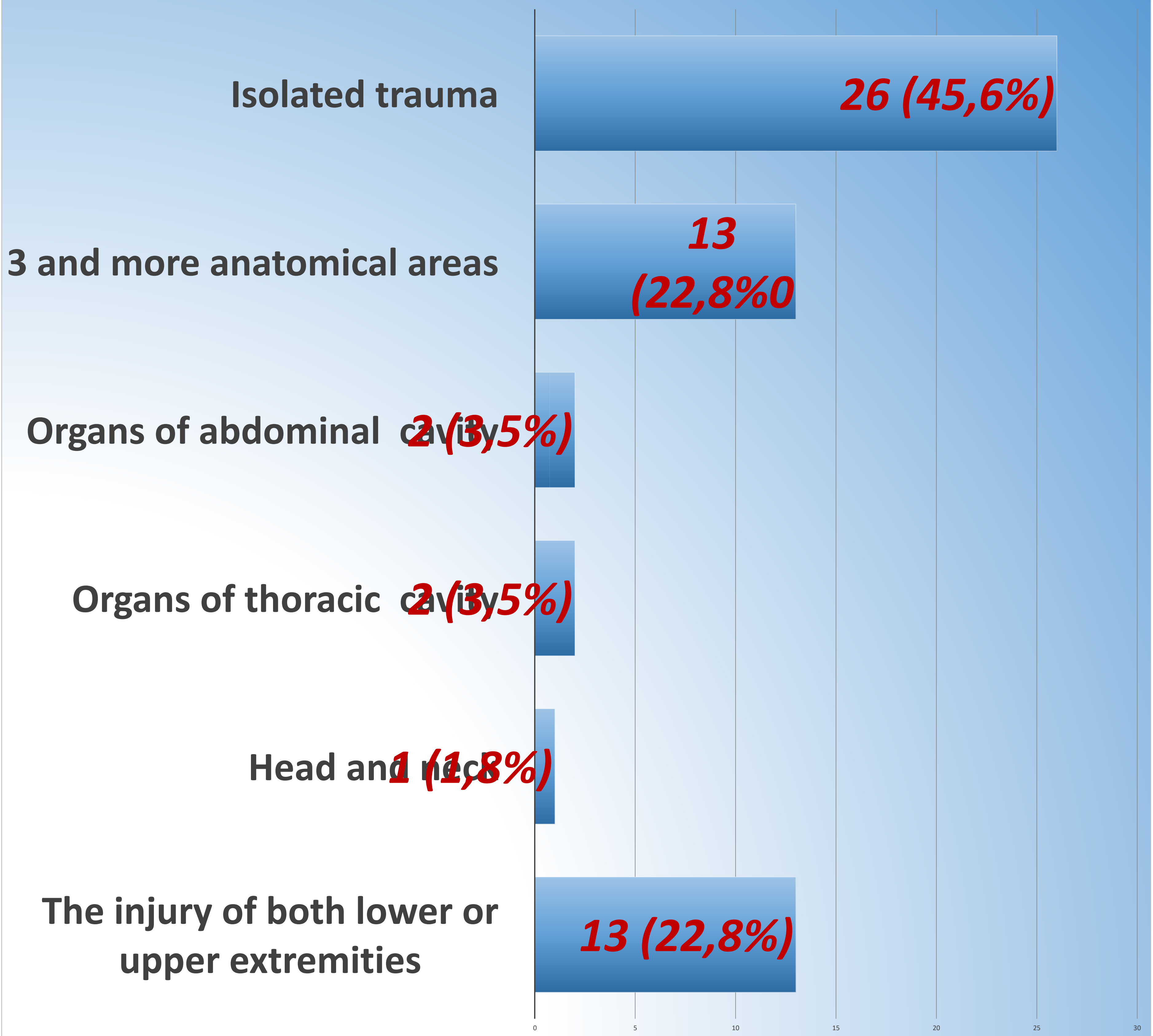
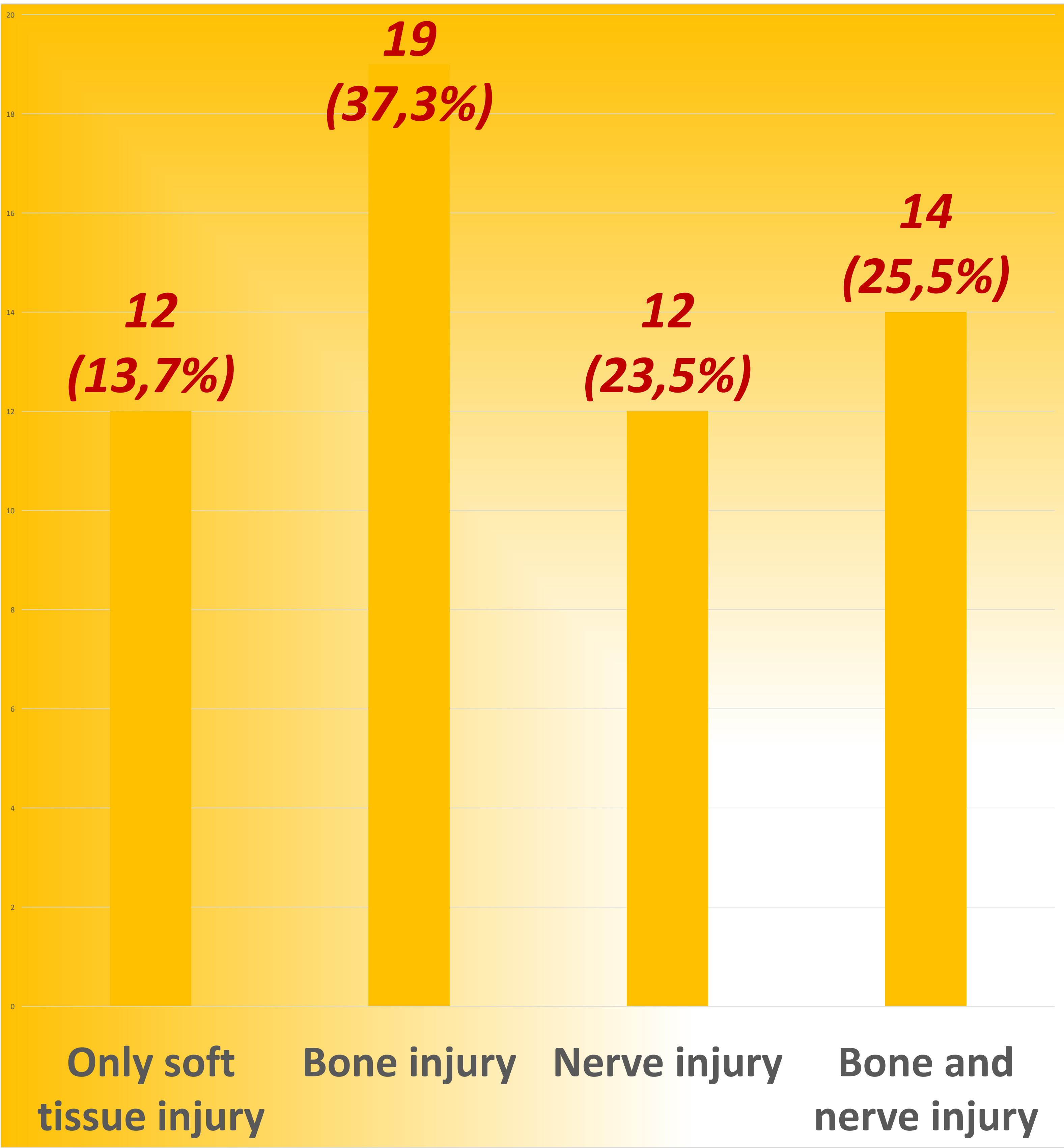
THE KIND OF INGURED VESSELS



Among all injuries, 88,2% were combat, and 11,8% - non-combat. Among injuries involved damage of the artery was in 20 cases (35,1%); in 6 cases (10,5%) – damage of the vein; in 31 cases (54,4%) - both, artery and vein. The localisation of the GSW was the following: in 46 individuals (76,5%) of the injuries were in femoropopliteal area, in 11 individuals (21,6%) - peroneal, in 1 individual (1,9%) - both.

RESULTS

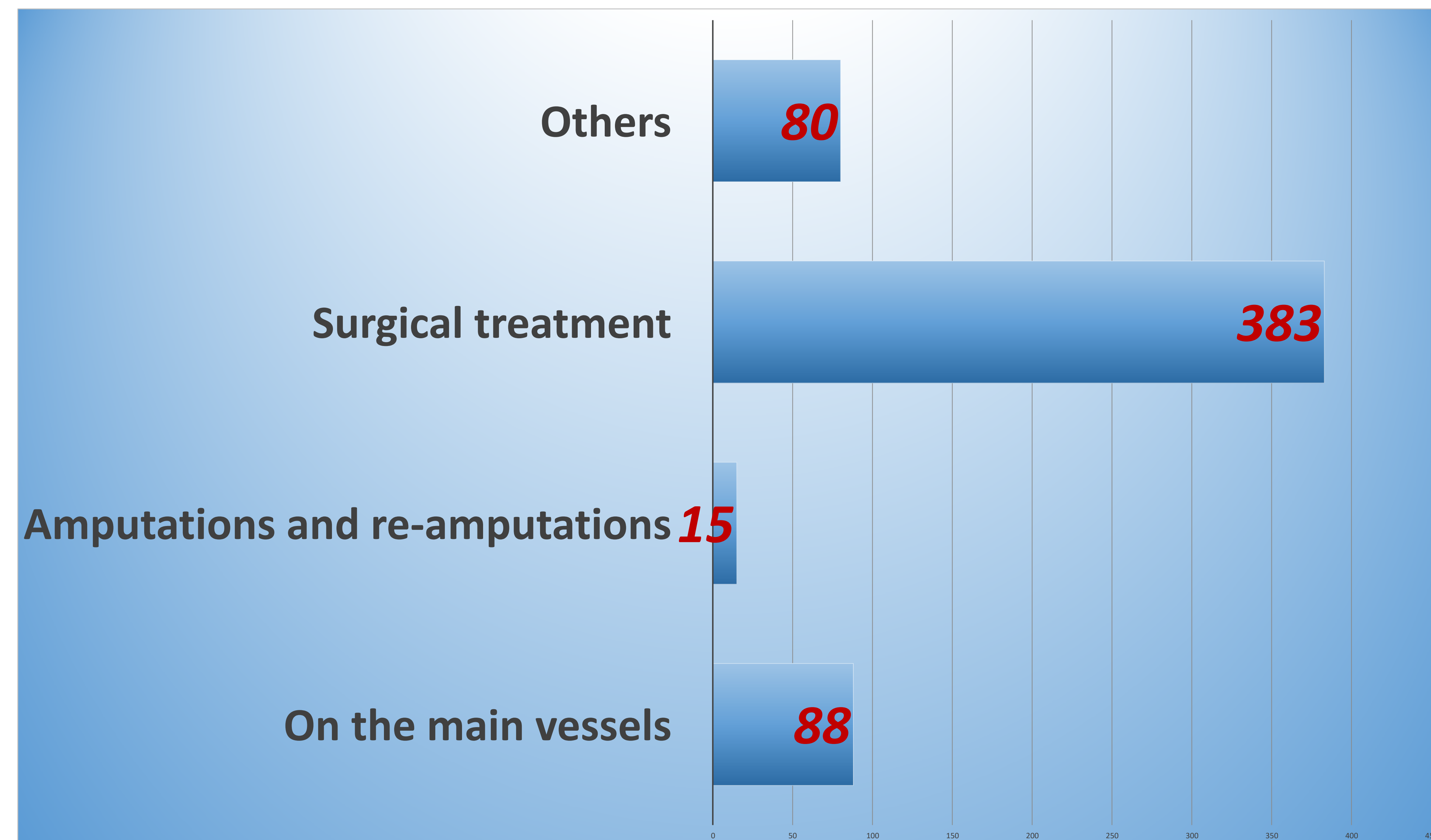
CONCOMITANT TRAUMA



The injuries that accompanied the trauma of the main vessels included: bone injury in 19 individual (37,3%); nerve injury – in 12 individual (23,5%); bone and nerve injury in 14 individual (25,5%); isolated soft tissue injury in 12 individual (13,7%). In 26 cases the injury was isolated (45,6%) and in 31 cases (54,4%) – multiple, included: the injury of both lower or upper extremities occurred in 13 cases (22,8%), organs of thoracic cavity in 2 cases (3,5%), organs of abdominal cavity – in 2 cases (3,5%), head and neck injury – in 1 case (1,8%), injury of 3 and more anatomical areas – in 13 cases (22,8%).

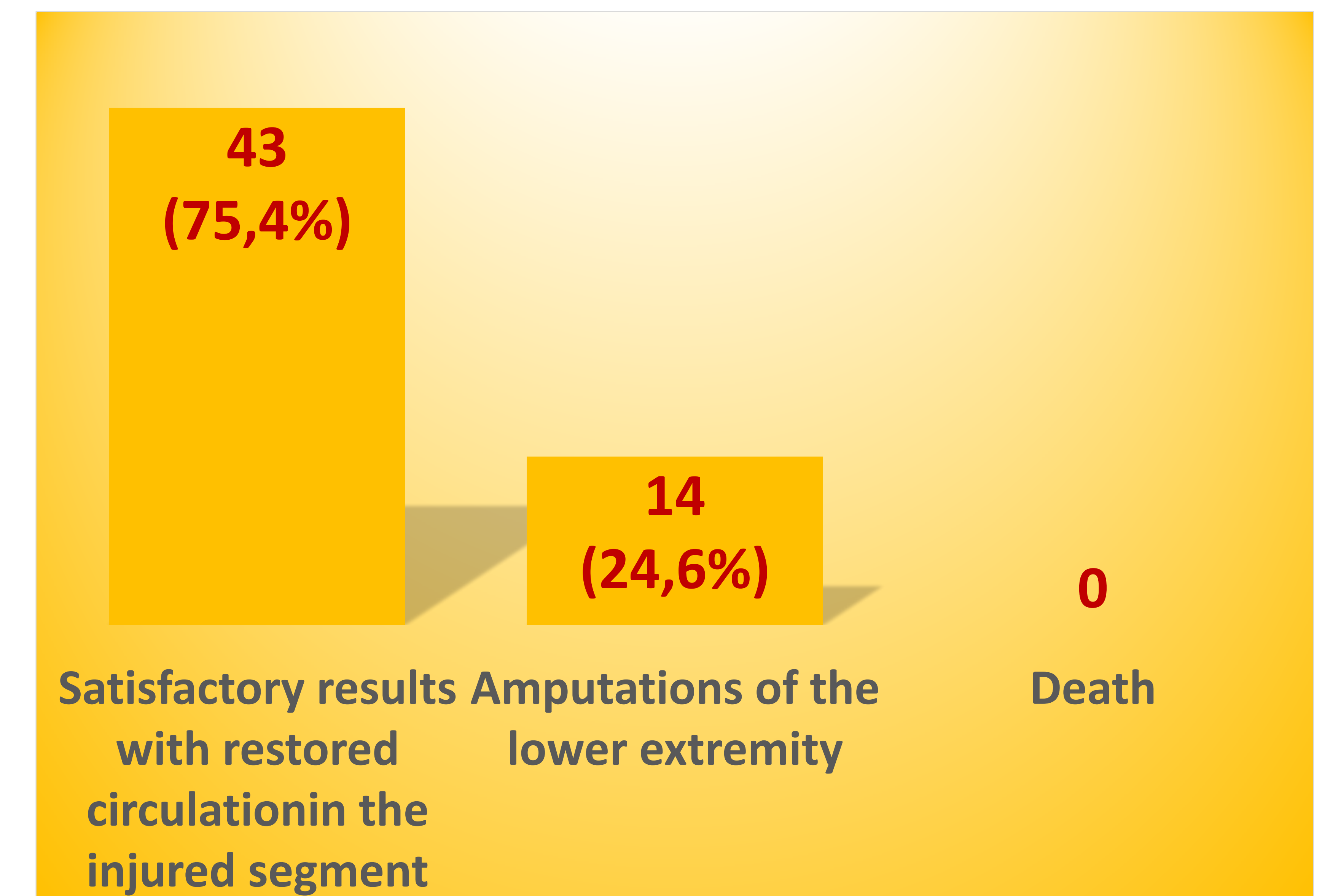
RESULTS

THE CHARACTERISTIC OF THE PERFORMED OPERATIONS



There was performed 565 operations in 57 patients; 88 (15,6%) of them – on the main vessels, 15 (2,7%) – amputations and re-amputations, 383 (67,6%) – surgical treatments, 80 (14,1%) – other.

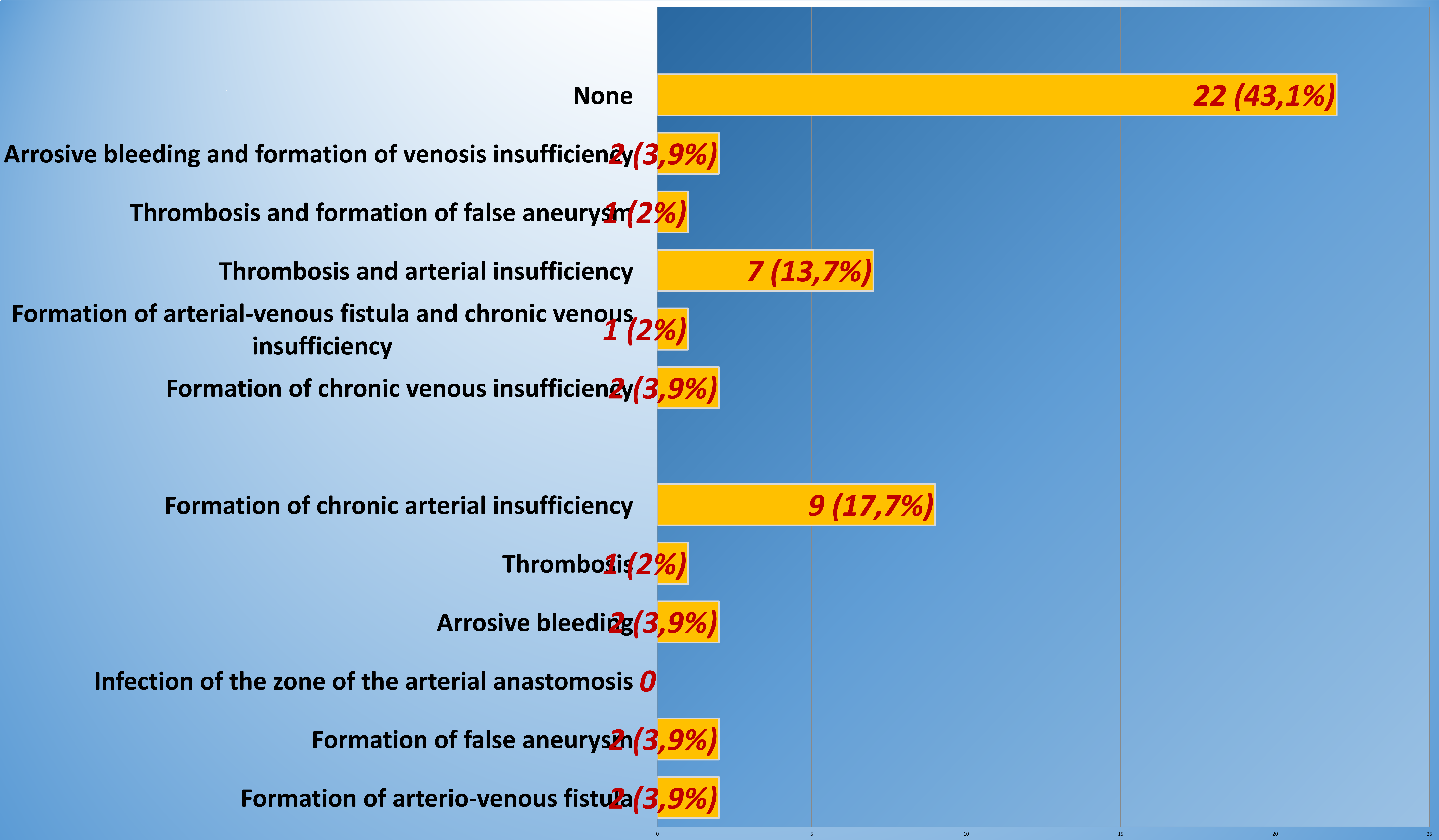
RESULTS OF THE TREATMENT



Analysing the results of treatment in 43 cases (75,4%) there was identified satisfactory result and in 14 (24,6%) – the treatment resulted in amputation.

RESULTS

THE LONG –TERM OUTCOMES OF THE INJURIES OF THE MAIN VESSELS



CONCLUSION

Gunshot wounds of the main vessels remain controversial and sophisticated area of the vascular surgery both, in therapeutic and organisational ways. Taking into account a significant part and severity of the gunshot wounds of the vessels, the main task for medical professionals today is the creation of the clear algorithm of the effective medical assistance to all patients on the stage of medical evacuation directed at rescue of life from acute bleeding, saving of the extremity, treatment of complications and outcomes of the vascular injury, and foundation of the system of the specialized surgical assistance and rehabilitation in the corresponding referral centres.

THANK YOU FOR YOUR ATTENTION!!!