Geriatric Gunshot Wounds: A Lethal Trend

William T. Barham[2], I. Ifearulundu[1], J. Stover[1], B. Platt[1], B. Bienvenue[2],
J. Hunt[1], P. Greiffenstein[1], J. Schoen[1]
A. Marr[1], L. Stuke[1], Alison A. Smith[1]

[1]Louisiana State University Health Sciences Center, Department Of Surgery, New Orleans, LA, USA;
[2]Louisiana State University Health Sciences Center, School Of Medicine, New Orleans, LA, USA

Introduction

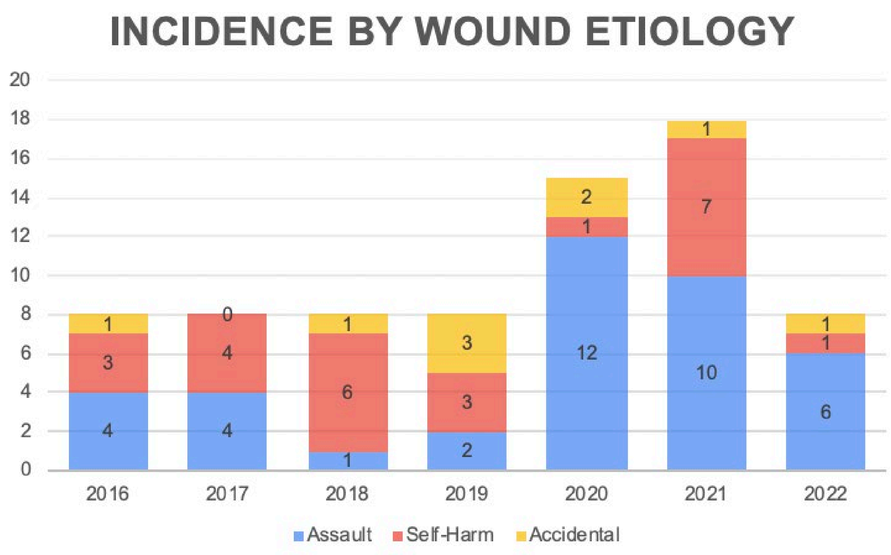
The proportion of the population in the United States over the age of 65 is increasing by the year with the aging of the baby boomer generation, however, there is a relative paucity of literature on trauma outcomes in this population. Even more pronounced is the lack of literature on the outcomes of gunshot wound trauma in this age group, as rates of gun violence increase in the United States. This study aimed to investigate trends in gunshot wound trauma in the geriatric population.

Demographics

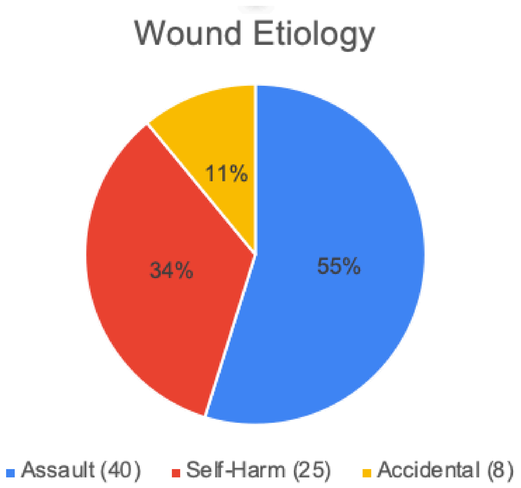
Inclusion Criteria:
- ♦ Age > 65 years
- ♦ Gunshot Wound Injury
- ♦ January 2016 – July 2022
- ♦ University Medical Center, New Orleans, LA

n = 74 (1.5% of 4,152 Reviewed)
- ♦ Median Age = 71
- ♦ 69% Male (51)
- ♦ 31% Female (23)
- ♦ Average BMI = 27.5

Incidence



Wound Etiology



Wound Site

♦ There was a significant association of location of wound site with mortality rate, with a statistically significant increase in mortality associated with injury to the head and extremities ($p<0.001$).

Mortality Outcomes

♦ Increased Injury Severity Score (ISS) (OR=1.45, CI: [1.16, 1.82]) and Operative Intervention (OR=74.53, CI: [1.12, 4938.61]) were associated with increased mortality ($p<0.05$)

♦ A longer Length of Stay (LOS) was associated with decreased mortality (OR=0.77, CI: [0.61, 0.97], $p<0.05$)

♦ There were no significant differences in overall mortality noted with respect to: age, tracheostomy usage, gastric tube usage, or long-term care placement

Conclusion

This review of geriatric gunshot trauma patients presenting to an ACS Verified Level 1 Trauma center from 2016-2022 highlights:
- ♦ Increasing incidence of geriatric gunshot wounds
- ♦ An increase in assault as mechanism of injury for geriatric gunshot wounds
- ♦ Longer hospital stays and operative interventions were associated with decreased mortality