Penetrating trauma in urban women: Patterns of injury and violence

Abstract
Background: Penetrating trauma is known to occur with less frequency in women than in men, and this difference has resulted in a lack of characterization of penetrating injury patterns involving women. We hypothesized that the nature of penetrating injury differs significantly by gender and that these injuries in women are associated with important psychosocial and environmental factors. Materials and methods: A level 1 urban trauma center registry was queried for all patients with penetrating injuries from 2002-2010. Patient and injury variables (demographics and mechanism of injury) were abstracted and compared between genders; additional social and psychiatric histories and perpetrator information were collected from the records of admitted female patients. Results: Injured women were more likely to be Caucasian, suffer stab wounds instead of gunshot wounds, and present with a higher blood alcohol level than men. Compared with women with gunshot wounds, those with stab wounds were three times more likely to report a psychiatric or intimate partner violence history. Women with self-inflicted injuries had a significantly greater incidence of prior penetrating injury and psychiatric and criminal history. Male perpetrators outnumbered female perpetrators; patients frequently not only knew their perpetrator but also were their intimate partners. Intimate partner violence and random cross-fire incidents each accounted for about a quarter of injuries observed. Conclusions: Penetrating injuries in women represent a nonnegligible subset of injuries seen in urban trauma centers. Psychiatric and social risk factors for violence play important roles in these cases, particularly when self-infliction is suspected. Resources allocated for urban violence prevention should proportionately reflect the particular patterns of violence observed in injured women. © 2013 Elsevier Inc. All rights reserved.

Author Keywords
Epidemiology; Female; Interpersonal violence; Penetrating trauma; Psychiatric history

References
- Cornwell Iii., E.E., Belzberg, H., Velmahos, G.
  The prevalence and effect of alcohol and drug abuse on cohortmatched critically injured patients

- Cowperthwaite, M.C., Burnett, M.G.
  Treatment course and outcomes following drug and alcohol-related traumatic injuries

- Harris, A.R., Fisher, G.A., Thomas, S.H.
  Homicide as a medical outcome: Racial disparity indeaths fromassault in US level I and II trauma centers

- Ovadia, P., Szewczyk, D., Walker, K., Abdullah, F., Schmidt-Gillespie, S., Rabinovici, R.
  Admission patterns of an urban level I trauma center

- Poole, G.V., Lewis, J.L., Devidas, M., Hauser, C.J., Martin, R.W., Thomae, K.R.
  Psychopathologic risk factors for intentional and nonintentional injury

- Nance, M.
  (2012) NTDB Annual Report 2012,
  Rotondo M, editor. American College of Surgeons Committee on Trauma Leadership. Chicago: American College of Surgeons

- Haider, A.H., Crompton, J.G., Oyetunji, T.
  Females have fewer complications and lower mortality following trauma than similarly injured males: A risk adjusted
analysis of adults in the National Trauma Data Bank

George, R.L., McGwin Jr., G., Metzger, J., Chaudry, I.H., Rue III, L.W.
The association between gender and mortality among trauma patients as modified by age

Haider, A.H., Crompton, J.G., Chang, D.C.
Evidence of hormonal basis for improved survival among females with trauma-associated shock: An analysis of the
National Trauma Data Bank

Phelan, H.A., Shafi, S., Parks, J.
Use of a pediatric cohort to examine gender and sex hormone influences on outcome after trauma

Gannon, C.J., Napolitano, L.M., Pasquale, M., Tracy, J.K., McCarter, R.J.
A statewide population-based study of gender differences in trauma: Validation of a prior single-institution study

Horon, I.L., Cheng, D.

Ikossi, D.G., Lazar, A.A., Morabito, D., Filides, J., Knudson, M.M.
Profile of mothers at risk: An analysis of injury and pregnancy loss in 1195 trauma patients

Victims of domestic violence on the trauma service: Unrecognized and underreported

Grisso, J.A., Schwarz, D.F., Hirschinger, N.
Violent injuries among women in an urban area

Plurad, D., Talving, P., Tang, A.
Alcohol ingestion is independently associated with complications after work place injuries: A national trauma data
bank analysis of injury severity and outcomes

Whetsell, L.A., Patterson, C.M., Young, D.H., Schiller, W.R.
Preinjury psychopathology in trauma patients
discussion 1161-1162

Bennett, K.M., Vaslef, S.N., Shapiro, M.L., Brooks, K.R., Scarborough, J.E.
Does intent matter. The medical and societal burden of selfinflicted injury

Kyriacou, D.N., Anglin, D., Taliaferro, E.
Risk factors for injury to women from domestic violence against women

Mo-scicki, E.K.
Gender differences in completed and attempted suicides

Ajdacic-Gross, V.
Methods of suicide: International suicide patterns derived from the WHO mortality database

Characterization of nonfatal events and injuries resulting from youth violence in patients presenting to an
emergency department

Potter, L.B., Sacks, J.J., Kresnow, M.J., Mercy, J.
Nonfatal physical violence United States 1994
Sex differences in the perpetrator-victim relationship among emergency department patients presenting with nonfatal firearm-related injuries

Correspondence Address
Pascual J.L.; Division of Traumatology, Department of Surgery, University of Pennsylvania Perelman, 3400 Spruce Street, Philadelphia, PA 19104, United States; email: jose.pascual@uphs.upenn.edu

ISSN: 00224804
CODEN: JSGRA
DOI: 10.1016/j.jss.2013.06.026
Language of Original Document: English
Abbreviated Source Title: J. Surg. Res.
Document Type: Article
Source: Scopus