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**RESULTS:** Testosterone treatment led to decreased aggregation within all sex and age profiles compared to controls for ADP ($p=0.0014$) and PAF ($p<0.0001$). There was a baseline difference in aggregation between YM vs. OM($p<0.0001$) and YM vs. YF($p<0.0001$). However, in response to ADP, but not PAF, aggregation increased in YF vs. OF ($p=0.0096$) and OF vs. YM($p<0.0001$). Testosterone decreased CD41 expression by 38.6±14.1%(ADP) and 34.6±13.9%(PAF) (no difference in control with and without testosterone).

**CONCLUSION:** Testosterone decreases platelet aggregation and activation to ADP and PAF within all sex and age groups vs controls, indicating that a mechanistic effect exists for testosterone on platelets. These results, ever relevant in a male-dominated trauma population, highlight the potential for androgenic inhibitors as a therapeutic adjunct in TIC.

### The Impact of COVID-19 and Associated Social Restrictions on Violence Related Trauma: Experience From an Urban Trauma Center

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**INTRODUCTION:** During the Covid 19 pandemic social policies were implemented to limit spread of disease. With the implementation of these policies, we observed a change in pattern of trauma encounters. The aim of this study was to assess the effect of Covid 19 related social policies on trauma volume and injury mechanism at our urban trauma center.

**METHODS:** Trauma registry data was reviewed from March 2019 to July 2020 and was stratified according to activation level. Violence related injuries (VRI) included gunshot wounds, stab wounds, and blunt assault. We correlated trends in trauma encounters with the severity of pandemic, implementation of policies, and ease of lock-down.

**RESULTS:** A total of 1620 trauma encounters were identified. During the peak of the pandemic there was a 25% reduction in the number of total activations compared to the corresponding months in 2019. Level 1 and level 2 activations decreased by 31% and 34% respectively, but the acuity of patients presenting was higher. With ease of lock-down, there was a 40% increase in the number of encounters when compared to the same months in 2019. Majority of this surge was due to a 28% increase in gunshot related injuries.

**CONCLUSION:** Although total traumas decreased during the peak of Covid, injury severity remained high. There was an unprecedented surge of violence related injuries in comparison to prior years as social restrictions were eased. Thus, trauma capabilities need to be maintained at institutional and regional levels through all phases of a pandemic.

### The Impact of Gender on Clinical Outcomes after Sustaining Pelvic Fracture

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**INTRODUCTION:** In trauma care, pelvic fractures contribute to significant morbidity and mortality. Since men and women have different pelvic structures and hormonal milieu, we studied if these gender differences affect clinical outcomes after pelvic fractures.

**METHODS:** Using the 2016 American College of Surgeons Trauma Quality Improvement Program (ACS TQIP) database, we stratified 24,425 patients with pelvic fractures by gender into male and female groups. Each group was analyzed for differences in comorbidities, complications, and other clinical parameters.

**RESULTS:** Female patients were older ($p<0.001$) and had significantly more comorbidities ($p<0.001$), such as bleeding disorder, congestive heart failure, chronic obstructive pulmonary disorder, dementia, chronic renal failure, diabetes mellitus, and hypertension. Although female patients were sicker prior to sustaining pelvic fractures, male patients had significantly higher rates of post-trauma complications ($p<0.001$), such as acute kidney injury, deep vein thrombosis, unplanned admission to the intensive care unit (ICU), and unplanned return to the operating room (OR). More specifically, being male independently increased the risk of developing at least one complication by 26.96% ($p<0.001$). Male patients also had a significantly higher average injury severity score (ISS) ($21.9 \pm 0.089$ vs $20.7 \pm 0.11$, $p<0.001$) and longer hospital length of stay in comparison to female patients ($13.4 \pm 0.12$ days vs $11.8 \pm 0.14$ days, $p<0.001$).

**CONCLUSION:** Although female patients were older and had more pre-existing comorbidities, male patients developed significantly more post-trauma complications and had longer hospital stays. These dissimilar responses to trauma may be explained by gender-related differences in pelvic structure and hormone levels.

### The Social Vulnerability Index: A Useful Needs Assessment Tool to Guide Intervention and Prevention Efforts after Injury?

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