Sensitivity of Physical Examination in Blunt Pelvic Trauma: What We Think We Know

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• Pelvic fractures account for 3% of skeletal fractures with a 10-16% death rate
• Pelvic fractures that disrupt the pelvic ring are 2-4% of all pelvic injuries with a 45% death rate
• Diagnosed by physical exam, X-ray, and CT scan
• Intervention includes pelvic binding, packing, and interventional radiology
• Treatment includes nonoperative-operative fixation
• Sensitivity is how well the method of detection is at discovering an injury

References

METHODS
• Retrospective study of database screened for pelvic injury from January 1st, 2015 to May 1st, 2018 selecting 776 patients
• Microsoft Excel
• PowerChart
• accessANYware
• MedCalc

EXCLUSIONS
• Pediatrics
• Penetrating traumas
• Transfers/self-transfers
• Isolated hip/ coccyx/sacroccocyx fractures
• Pelvic binder placement
• Subacute fracture
• No trauma contact

HYPOTHESES
• Sensitivity/Specificity of pelvic examination in trauma bay is adequate for screening pelvic trauma
• Sensitivity/Specificity of pelvic radiograph is similar to physical exam

RESULTS

<table>
<thead>
<tr>
<th>Physical Exam</th>
<th>Tender/Unstable Positive</th>
<th>Nontender/Stable Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fracture</td>
<td>247</td>
<td>134</td>
</tr>
<tr>
<td>No fracture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
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<tr>
<td>Negative</td>
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n = 381
Sensitivity: 64.83%

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n = 244
Sensitivity: 73.36%

INTRODUCTION

ACKNOWLEDGEMENTS

CONCLUSIONS
• The data of the retrospective review could not assess false positive, true negative, specificity, and positive predictive value

LIMITATIONS
• 381 patients from the retrospective data were analyzed
• Physical exams are less sensitive than X-rays
• Continue the study Prospectively

CLINICAL IMPLICATIONS
• Decrease time to definitive diagnosis
• Decrease time to therapeutic interventions
• Increase survival

ACKNOWLEDGEMENTS
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