LAPAROTOMY MORTALITY RATES IN PATIENT WITH BLUNT ABDOMINAL TRAUMA FOLLOWING DIAGNOSTIC BASED GROUP CLASSIFICATION: A SYSTEMATIC REVIEW

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INTRODUCTION

- Blunt abdominal trauma remains a significant cause of mortality, with rates ranging from 8% to 17% due to associated intra-abdominal injuries. Despite advancements in diagnostic techniques, such as FAST scans and CT scans, there are challenges in accurately identifying injuries, as highlighted by Dolich et al.'s finding that 1.7% of patients with negative FAST scans required exploratory laparotomy.
- The sensitivity of FAST scans in stable patients with blunt abdominal trauma is only 22%, underscoring the need for improved diagnostic algorithms.
- Sole reliance on CT scans may miss hollow viscus injuries, leading to delayed interventions and increased morbidity.
- The Injury Severity Score (ISS) serves as a crucial tool in predicting mortality outcomes and guiding treatment decisions.

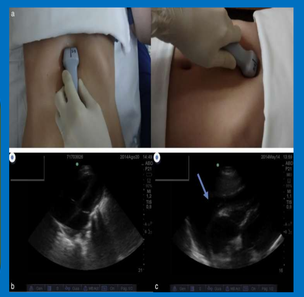




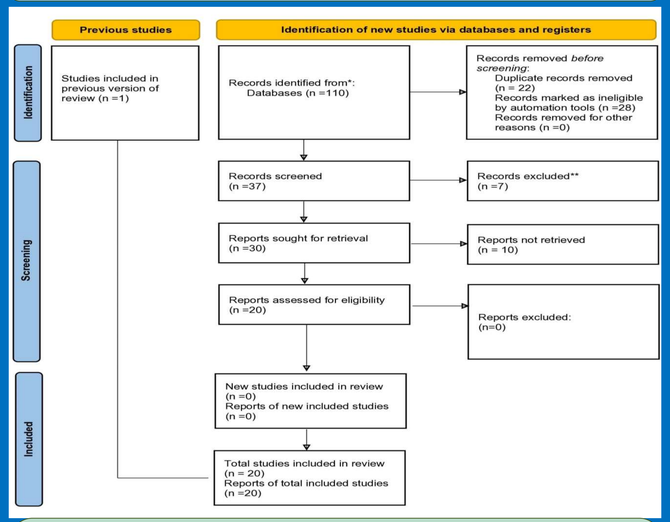


OBJECTIVES

1. To compare mortality rates between laparotomy and alternative treatments in blunt abdominal trauma.
2. To evaluate the effectiveness of FAST scans, CT scans, and ISS in predicting mortality outcomes.



METHODS

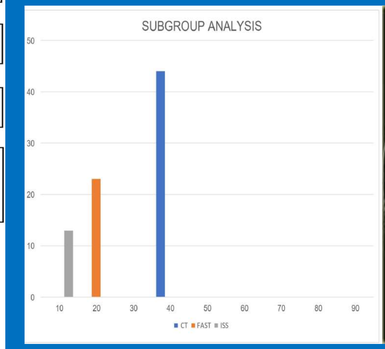


- ❖ Systematic review and meta-analysis adhering to PRISMA guidelines.
- ❖ Comprehensive literature search conducted across major databases from 2000 to 2023.
- ❖ Independent data extraction, quality assessment, and statistical analysis performed to assess laparotomy rates and outcomes.

RESULT

- Trauma severity assessment through scoring systems like ISS and AAST-OIS aids in predicting patient outcomes and guiding treatment decisions effectively.
- Radiological findings from CT and FAST scans are associated with mortality rates, with positive CT findings showing the highest mortality, followed by positive FAST scans, and higher ISS scores indicating elevated mortality risk.

Diagnostic Test	Percentage	Confidence Interval
Positive CT	44%	(42.9% - 45.1%)
Positive FAST	23%	(20.6% - 25.4%)
ISS SCORE>15	12.94%	(12.4% - 13.4%)





DISCUSSION

- The Injury Severity Score (ISS) is a valuable tool for assessing injury severity and predicting outcomes in blunt abdominal trauma (BAT) patients, promoting its use can potentially improve patient care and outcomes.
- ISS scoring can help triage patients, determine the need for operative intervention, benchmark trauma care, and track quality improvement initiatives.
- ISS provides a comprehensive and user-friendly approach for assessing polytrauma patients, making it well-suited for trauma cases where multi-system injuries are common.
- The study aims to evaluate the clinical performance of diagnostic modalities like FAST, CT scan, and ISS in predicting mortality in BAT patients undergoing laparotomy.

CONCLUSION

- ❑ The Injury Severity Score (ISS) is crucial in assessing injury severity and predicting outcomes in blunt abdominal trauma patients, promoting its use can enhance patient care and outcomes. Diagnostic modalities like FAST, CT scans, and ISS play significant roles in predicting mortality in BAT patients undergoing laparotomy.
- ❑ The study emphasizes the importance of accurate trauma scoring systems like ISS in guiding treatment decisions and providing a standardized measure for comparing injury severity across patients.

LIMITATIONS

- The FAST exam is operator-dependent and may not always accurately detect injuries, leading to potential missed injuries and delayed treatment.
- CT scans, while the imaging choice for BAT, may not easily show hollow viscus injuries, potentially resulting in delayed surgical intervention.
- The study focuses on adult populations from 2000 to 2023, potentially excluding relevant data from earlier or later years.
- The search was limited to studies published in English, potentially excluding valuable research published in other languages.

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