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**SP10.1.5 Hajibandeh Index and intraperitoneal contamination: A cohort study and meta-analysis**

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**Aims:** To validate the performance of the Hajibandeh Index (HI) in predicting the presence and nature of intraperitoneal contamination in patients with acute abdominal pathology.

**Methods:** The STROCSS guidelines and the PRISMA statement standards were followed to conduct a cohort study and a meta-analysis, respectively. All adult patients undergoing emergency laparotomy for acute abdominal pathology were eligible. The accuracy of the HI was evaluated using ROC curve analysis in the cohort study and using weighted summary AUC under the fixed and random effects modelling in the meta-analysis. The QUADAS-2 criteria were used for methodological quality assessment of the included studies.

**Results:** A total of 1437 patients were included (700 from the cohort study and 737 from the literature search). ROC curve analysis of the cohort study showed that the AUC of HI for presence of contamination was 0.79 (P < 0.0001) and meta-analysis showed that the pooled AUC of HI was 0.79 (0.75–0.83). In terms of nature of contamination, the cohort study showed that the AUC of HI for purulent and feculent contamination was 0.76 (P<0.0001) and 0.83 (P<0.0001), respectively. The pooled AUC of HI for purulent and feculent contamination was 0.78 (0.74–0.81) and 0.80 (0.77–0.83), respectively.

**Conclusions:** The HI is a strong and accurate predictor of the presence and nature of intraperitoneal contamination. We encourage other researchers to validate performance of HI in predicting the presence of intraperitoneal contamination and more importantly in predicting mortality following emergency laparotomy.