LETTER TO THE EDITOR
Turk J Surg

Critical appraisal of "predictive score for conversion in laparoscopic cholecystectomy – a prospective study" by V et al.

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Dear Editor,

Critical appraisal of "Predictive Score for Conversion in Laparoscopic Cholecystectomy – A Prospective Study" by V et al. (1).

The study by V et al. (1), published in the Turkish Journal of Surgery [2025;41(2):141–146], addresses a significant surgical challenge: Predicting the need to convert a laparoscopic cholecystectomy to open surgery. The authors prospectively evaluated 222 patients undergoing elective laparoscopic cholecystectomy and proposed a two-point preoperative scoring system based on gallbladder wall thickness (>4 mm) and gallbladder contracture seen on ultrasonography. The simplicity of the model and its reliance on widely available imaging make it potentially valuable in day-to-day clinical decision-making.

Despite its merits, several methodological limitations affect the utility and generalizability of the proposed score. While six variables—age, sex, leukocyte count, gallbladder wall thickness, gallbladder size, and CBD were found significant on univariate analysis, only two ultrasonographic variables were included in the final scoring system. This exclusion of clinically significant predictors such as age and male gender, both with p-values of 0.001, is a notable shortcoming. These variables have been well established in previous literature as independent risk factors for conversion. Chin et al. (2) conducted a meta-analysis of 30 studies and confirmed advanced age and male sex among the most consistent predictors for conversion. Similar findings were reported in a Turkish cohort by Sapmaz and Karaca (3).

Another limitation lies in the study's inclusion criteria. By restricting the population to elective cases, the authors may have inadvertently selected for a lower-risk group, thereby limiting the external validity of the model. Emergency cases, which frequently involve inflamed or fibrotic anatomy, represent a significant portion of real-world surgical practice and often carry a higher conversion risk.

Ultrasonography, although practical, is highly dependent on the operator. The study did not assess interobserver variability in measuring gallbladder wall thickness or identifying contracture. Without standardised imaging criteria or training calibration, the reproducibility of these findings across centres remains uncertain.

Furthermore, the scoring system has not undergone internal or external validation. In contrast, recent tools such as Conversion from Laparoscopic to Open Cholecystectomy score (CLOC), integrate both clinical and radiologic variables and have demonstrated external validity in independent cohorts (4).

Cite this article as: N K, M S. Critical appraisal of "predictive score for conversion in laparoscopic cholecystectomy – a prospective study" by V et al. *Turk J Surg.* [Epub Ahead of Print]

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Received: 11.06.2025
Accepted: 01.08.2025
Epub: 11.08.2025

DOI: 10.47717/turkjsurg.2025.2025-6-9

Available at www.turkjsurg.com

To improve the model, the authors might consider incorporating weighted clinical parameters such as age and sex into the scoring system, rather than relying solely on imaging findings. A composite score reflecting both radiological and patient-related variables would likely enhance predictive accuracy. Additionally, including markers of systemic inflammation could further improve discriminatory performance. Ultimately, integrating clinical, biochemical, and imaging parameters into a unified and validated predictive model would represent a more robust tool for preoperative risk stratification.

Future studies should aim to validate this scoring system across multiple centres with surgeons of varied experience levels and include both elective and emergency cholecystectomy cases. Standardization of ultrasonographic measurements and interobserver reliability testing would also be valuable.

In conclusion, the study by V et al. (1) is a commendable effort to simplify preoperative risk stratification in laparoscopic cholecystectomy. However, refinement of the scoring model to include validated clinical predictors and broader patient populations, along with external validation, would enhance its clinical relevance and adoption.

Footnotes

Author Contributions

Analysis or Interpretation - K.N.; Literature Search - K.N., S.M.; Writing - K.N., S.M.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

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