

## Preoperative risk assessment scores for Difficult Laparoscopic cholecystectomy- do we need them in Pakistan?

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In recent literature, a Spanish study defines 'difficult' laparoscopic cholecystectomy (DLC) as the presence of at least one of the following conditions in an intraoperative setting: bile duct injury, Mirizzi syndrome, Calot triangle inflammation, conversion to laparotomy, and pericholecystic abscess.<sup>1</sup> The standardisation of a criteria is important to provide scores that could predict difficulty preoperatively and have lasting implications on surgical safety and postoperative patient recovery.

The 2020 World Society of Emergency Surgery (WSES) guidelines for the management of bile duct injury during cholecystectomy recommend a thorough preoperative work-up to detect at-risk patients, signifying the need for a preoperative assessment scale.<sup>2</sup> Clinically, there are numerous predictive assessment scores in practice globally, each specific to a certain demographic, unique in limitations and employing diverse clinical, laboratory and radiological parameters.

Currently, use of predictive assessment scores for DLC is not a common practice in Pakistan, however, studies have determined advanced age, obesity, previous abdominal surgery, deranged alkaline phosphatase (ALP) and multiple stones, as potential risk factors in our population. A value of C reactive protein (CRP) greater than 11 mg/dl was identified as having good sensitivity and specificity for predicting DLC in Pakistan.<sup>3</sup> Concurrently, male gender was concluded to be an independent risk factor for DLC (P = 0.041) on account of more adhesions and inflammation.<sup>4</sup> This data offers unique insight into our population, and can become grounds for establishing a novel standard predictive score for clinical use in Pakistan. A score by Randhawa et al could be our foundation due to similar demographics and identified potential risk factors of our population could be incorporated in a new scoring

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method.<sup>5</sup>

In a developing country like Pakistan, a standard score for this relatively common surgical procedure could prove pivotal in resource management. Better selection of out-patient procedures and targetted surgical planning can save money, manpower and equipment. This approach will allow better preoperative counselling regarding prognosis and aid in undertaking informed consent. Identification and hands-on training of low risk procedures could be pivotal for our residency training programmes. Further randomised prospective studies with large sample size are required to determine an efficient scoring system for the Pakistani population. However, any study which attempts to do so should keep in mind the limited resources in various hospitals across Pakistan. A generalised scale that relies more on clinical parameters and accessible lab markers and less on expensive radiology and high expertise should be preferred.

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