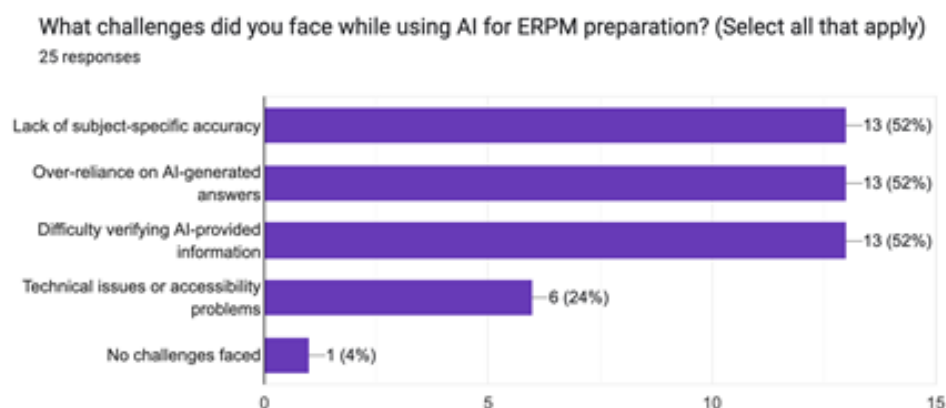


Figure 3 shows the challenges students faced when using AI to prepare for exams. An equal percentage of last year's Sri Lankan students reported that their common challenges included a lack of subject-specific accuracy, over-reliance on AI-generated answers, and difficulty verifying information provided by AI.



*Figure 2 – Challenges while using AI for exam preparation*

Thus, our study shows that further work is needed to develop reliable and effective methods for integrating AI into medical education.

### **Conclusion**

AI-based educational technologies represent a transformative approach to overcome the barriers faced by Sri Lankan medical graduates preparing for ERPM. Integrating LLM technology, digital twins, and chatbots into medical education will improve learning outcomes and personalize learning.

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## **STUDY OF THE CHOLE-POSSUM PRO SCALE BASED ON PARTICIPATION IN AN INTERNATIONAL MULTICENTER STUDY CHOLE-POSSUM PRO**

### **Introduction**

Currently, the Tokyo Guidelines and the World Society for Emergency Surgery (WSES) are used worldwide for the diagnosis and treatment of acute calculous cholecystitis (ACC). These guidelines state that early cholecystectomy (EC) should be the first-line therapy for

ACC [1, 2]. However, the invasive nature of EC and the selection of patients who may be at high risk when performing the procedure naturally raise questions about the criteria for selecting patients for the procedure [1].

Based on the results of the S.P.Ri.M.A.C.C. study [3], which was designed as a prospective multicenter observational study of patients with ACC who are candidates for EC, it was found that the POSSUM physiological score is the best predictor of complicated course after EC in ACC. Analysis of the collected data showed that the procalcitonin (PCT) value was also a very good predictor of mortality after EC in patients with ACC [4]. The combination of POSSUM and procalcitonin (PRO) in acute cholecystitis (CHOLE) scores was named the CHOLE-POSSUM PRO score. An international multicenter CHOLE-POSSUM PRO study is currently underway, in which we were able to participate [5].

### **Goal**

The primary goal is to study the accuracy of the CHOLE-POSSUM PRO score for predicting the outcome of early cholecystectomy in ACC patients as part of the international working group of the CHOLE-POSSUM PRO multicenter study.

### **Material and methods of research**

The study was conducted in the surgical departments of the Gomel City Clinical Hospital of Emergency Care. Inclusion criteria: patients with acute cholecystitis, aged over 18 years, informed consent to participate in the study.

Prospective data collection is based on patient questionnaires and data from case histories. The study protocol includes the results of examination and treatment of patients with acute cholecystitis, including laboratory test data and instrumental research methods with scoring according to the POSSUM scale and determination of the blood procalcitonin level.

Study information. CHOLE-POSSUM PRO is a prospective multicenter observational study of patients with ACC, candidates for EC. The primary objective of the study is to validate the CHOLE-POSSUM PRO score for 30-day mortality after EC in patients with ACC. The secondary endpoint is to validate the CHOLE-POSSUM PRO score for 30-days major complications (Clavien-Dindo  $\geq 3$ ). The tertiary endpoint is to evaluate the correlation of PCT and CHOLE-POSSUM PRO with intraoperative complications, duration of surgery, conversion rate, length of stay (LOS), 30-day readmission, result of blood and bile cultures.

The approximate time to complete recruitment is 2 years, and the duration of subject participation is 30 days from discharge. All analyses will be performed using Stata software (StataCorp, USA) at the Biostatistical and Clinical Research Facility of the coordinating center. Descriptive statistics will be calculated overall and for the results. The PCT and POSSUM-PS previously were included in a multivariable logistic regression model and the coefficients of the variables were used to develop the new score [5]: the CHOLE-POSSUM PRO.

The CHOLE-POSSUM PRO is shown in Table 1, and it has a maximum score of 3 and a range of 0–3 (4 categories).

Table 1 – CHOLE-POSSUM PRO Score

Variable	Score
a) POSSUM-PS $\geq 25$	2
b) PCT $\geq 4\text{ng/mL}$	1
a + b = CHOLE-POSSUM PRO	

The results of the research and their discussion

We analyzed questionnaires and case histories of 6 patients who met the inclusion criteria, the blood procalcitonin level was determined upon hospitalization: 3 female and 3 male patients.

Acute gangrenous calculous cholecystitis was diagnosed in 5 patients, and acute gangrenous calculous cholecystitis with perivesical abscess was diagnosed in one patient. All these patients underwent laparoscopic cholecystectomy. The average time for the operation after admission to the hospital was 6 hours. All these patients spent the early postoperative period in the intensive care unit.

POSSUM-PS scores were more than 25 in all patients. The PCT level  $\geq 4$  ng/mL was also determined in all patients.

In the postoperative period, one patient developed one complication, postoperative bile peritonitis, which required laparotomy. All patients subsequently recovered. The 30-day mortality rate was 0.

### **Conclusion**

In the framework of the international multicenter study CHOLE-POSSUM PRO, we studied the applicability of the POSSUM scale in combination with determination of the level of procalcitonin in the blood. This scoring assessment of the severity of acute calculous cholecystitis can be used to determine the prognosis of this disease.

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## **TRANS ABDOMINAL PREPERITONEAL PATCHY PLASTY VERSUS OPEN LICHTENSTEIN HERNIA REPAIR**

### **Introduction**

Inguinal hernia repairs are one of the most common general surgical operations and globally; about more than 20 million inguinal hernia repairs are conducted every year<sup>1</sup>. The condition is multifactorial and affects both genders at all ages [2,3]. Indirect hernia corresponds to more than 70% of cases among adults. Hernia recurrence is a significant long-term complication of hernia repair, with reported recurrence rates ranging from 1.1% to 33.0% after primary repair and 11.7–30.0% after recurrent hernia repair. Hernia repair can be accomplished through traditional open techniques or else through the minimally invasive laparoscopic approach. Over the last two decades, the laparoscopic approach has gained greater acceptance and there are two primary techniques: Totally extraperitoneal hernioplasty (TEP) and transabdominal peritoneal patch plasty (TAPP). TAPP was introduced in our department in 2017, and this study was undertaken