Analysis of Errors in Laparoscopic Cholecystectomy

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INTRODUCTION
Laparoscopic cholecystectomy (LC), as a standard of care in symptomatic gallstone disease, is the most commonly performed operation of the gastrointestinal tract. However, complication rate of LS is higher than open surgery, which is not a matter for discussion only at morbidity and mortality conferences or at meetings: patients are being injured. In surgical practice even a simple error may have profound consequences.

Surgical practice must be effective and safe. One of the most important responsibilities of surgical educators is teaching of safe surgery. Accordingly, one of the main objectives of world association of laparoscopic surgeons (WALS) is education of correct way of minimal access surgery. The aim of this study is to increase the awareness of laparoscopic surgeons about possible errors during laparoscopic procedures.

MATERIAL AND METHODS
In the attached DVD to this issue of world journal of laparoscopic surgery (WJLS), there is a video of LC with several errors. This operation was performed by a general surgery resident postgraduate year 4 in the teaching university hospital without the attending supervision in December 2008. This real-time video was divided into 10 parts. A questionnaire form (both paper-based and computer-based) has been made. It included the demographic data and a table. It is expected that the surgeons see the video carefully and write all errors happened in each parts of the operation. The completed form can be sent to quiz@wals.in. An award and certificate will be given to five surgeons specifying more errors in each parts of video by WALS during the next upcoming WALS meeting at 2010.

RESULTS
After receiving and analyzing the answers, a complete set of errors happened in this video will be published in the next issue of WJLS. This process will increase the awareness of laparoscopic surgeons about different errors in LC and has a great educational impact.

DISCUSSION
Training in error analysis and prevention has been well-established in high-risk activities such as aviation and space travel. There has been little research in why and how errors occur during surgery. Additionally, most of these studies concentrate on postoperative adverse events and do not reflect on surgical technical skill errors and why they may occur. Several studies have indicated that most of the adverse events are preventable.

Performing laparoscopic surgery involves a complex cascade of psychomotor skills. While performing such highly technical tasks, it may be very difficult not to commit some errors. Therefore, the recognition and the execution of errors is an important task for surgeons.

A good method for assessing and improving knowledge is to try to detect errors. Previous studies confirmed that the ability to detect errors is closely correlated with technical performance. By examining the error rather than reading a book or having a verbal explanation may help improve their avoidance. In conclusion, this study will try to improve the knowledge and subsequently the skill of laparoscopic surgeons in a novel fashion.

ANALYSIS OF ERRORS IN LAPAROSCOPIC Cholecystectomy
One of the main objectives of world association of laparoscopic surgeons (WALS) is education of correct way of minimal access surgery. It has been proved that a good method for assessing and improving knowledge is to try to detect errors. The aim of this study is to increase the awareness of laparoscopic surgeons about possible errors during laparoscopic procedures. There is a video of laparoscopic cholecystectomy with several errors. This real-time video was divided into 10 parts. A questionnaire form (including demographic data and tables) in word format has been made. We request to see the video and write all errors happened in each part of the operation. The completed form can be sent to quiz@wals.in. An award and certificate will be given to five surgeons specifying more errors in each part of video by WALS during the next upcoming WALS meeting at 2010.

Please see the video for errors and write in the Table below:
Download the video from http://wals.in/quiz.htm
### Questionnaire (1/2)
**Analysis of Errors in Laparoscopic Cholecystectomy**

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### Questionnaire (2/2)
**Analysis of Errors in Laparoscopic Cholecystectomy**

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Please send the completed questionnaire to:

Email: quiz@wals.in

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### REFERENCES