

# Laparoscopic and open colorectal cancer surgery: a prospective study on resection margins and lymph node clearance

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## INTRODUCTION

In South-Asian countries, patients with colorectal cancer (CRC) tend to present late, compared to Europe and the United States (US). Thus, in South-Asia, there is some uncertainty, if laparoscopic CRC surgery would allow safe resection margins and adequate lymph node (LN) dissection, compared to open CRC surgery.

## OBJECTIVES

A survey was also done among surgeons who manage CRC patients in Sri Lanka to ascertain their views on the laparoscopic approach. In a cohort of Sri Lankan CRC patients, surgical resection margins and LN clearance were compared for the laparoscopic and open approach.

## METHODS

The survey used a pre-tested interviewer-administered questionnaire. Data were collected prospectively from patients undergoing laparoscopic or open CRC surgery at the University Surgical Unit, NHSL, from April 2016 to May 2019. The longitudinal (LRM) and circumferential resection margins (CRM) and number of LN harvested were determined for each procedure. Chi-squared test and Student's t-test were used to compare CRM and LN harvest respectively.

## RESULTS

Of 59 surgeons interviewed, 11(18.6%) performed laparoscopic CRC surgery and 51(86.4%) laparoscopic cholecystectomy. Of 137 patients (males:females-83:54), 81 and 56 had laparoscopic and open CRC surgery. All had clear LRM's. 78(96%) in the laparoscopic and 51(91%) in the open groups, had clear CRM's ( $p>0.05$ ). Lymph nodes resected were: [laparoscopy-1499 (mean-18.5,SD 0.6) and open-689 (mean-12.3,SD 0.4) ( $p<0.05$ )].

## CONCLUSIONS

A majority of surgeons in Sri Lanka did not perform laparoscopic CRC surgery. LRM and CRM were comparable in the laparoscopic and open CRC surgery groups. Better regional LN clearance was obtained with laparoscopic CRC surgery.