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HUBUNGAN LAMA LAPARASKOPI RESEKSI KANKER KOLON DENGAN LAMA RAWAT INAP DI RSUP DR. KARIADI

Edmond Rukmana Wikanta
Staff Dosen Fakultas Kedokteran, Universitas Diponegoro, Semarang

ABSTRAK

Kanker kolorektal menempati peringkat ketiga terbanyak di dunia, maupun di Indonesia. 95% merupakan adenokarsinoma, sisanya adalah karsinoma musinosa dan adenoskuamosa. Laparoskopi telah menjadi metode bedah pilihan untuk pasien dengan kanker kolorektal. Keberhasilan operasi pada kasus kanker kolorektal dipengaruhi oleh beberapa faktor, di antaranya jumlah kehilangan darah, lama operasi, dan *Visual AnalogueScale*(VAS). RSUP Dr. Kariadi sebagai pusat rujukan di Jawa Tengah untuk pelayanan bedah kasus kanker kolorektal telah beberapa tahun menggunakan pendekatan bedah laparoskopik. Penelitian ini bertujuan untukmembuktikan terdapat terdapat hubungan lama waktu operasi laparoskopireseksi kanker kolon dengan lama rawat inap di RSUP drKariadi Semarang. Penelitian ini menggunakan desain penelitian retrospektif dengan rancangan kasus kontrol. Sampel penelitian sebanyak 26 pasien (18 laki-laki dan 8 perempuan) yang menjalani laparoskopireseksi kanker kolon di RSUP Dr. Kariadi, Semarang periode Juli 2010 – Desember 2013. Subjek penelitian diambil dari catatan medik rumah sakit. Tahap penulisan dilaksanakan setelah data terkumpul dan dilakukan analisis. Analisis data dilakukan dengan uji normalitas*Shapiro-Wilk* dan uji korelasi *Spearman*dengan *SPSS 15.0 for Windows*.Hasil uji normalitas*Saphiro-Wilk*didapatkan distribusi yang tidak normal pada lama operasi dan lama rawat inap. Dari uji Spearman, didapatkan korelasi positif bermakna antara lama waktu operasi dan lama rawat inap (p = 0,000). Dapat disimpulkan bahwa lama waktu operasi berhubungan dengan lama rawat inap setelah laparoskopireseksi kanker kolon di RSUP Dr. Kariadi Semarang periode Juli 2010-Desember 2013.

Kata kunci: Lama operasi, lama rawat inap

ABSTRACT

THE CORRELATION BETWEEN DURATION OF LAPAROSCOPIC COLON CANCER RESECTION SURGERY AND LENGTH OF STAY AT DR. KARIADI HOSPITAL

Colorectal cancer becomes the third most popular cancer in the world andso does in Indonesia. Adenocarcinoma makes up95% of all colorectal cancer cases, while the rest are mucinous carcinoma and adenosquamous. Laparoscopic has become apreferredsurgical method for colorectal cancer patient.The successof colorectal cancer surgery is influenced by many factors, such as the amount of blood loss, duration of surgery, andVisual Analogue Scale (VAS). Dr. Kariadi hospital as a referral center in Central Java for colorectal cancer surgery has used laparoscopic approach for years.This research aimedto prove that there is a correlation between duration of laparoscopiccolon cancer resection with length of stay at Dr. Kariadi hospital Semarang.This research used a retrospective research design with case control study. There were 26 samples (18 males and 8 females) who underwent laparoscopiccolon cancer resection at Dr. Kariadi hospital Semarang in a period of July 2010 – December 2013. Research subjectswere taken from hospital medical record. Writing stage was done after data collection and analysis. Data analysis was done usingShapiro-Wilknormality test andSpearman correlation test withSPSS 15.0 for Windows.Saphiro-

Wilknormality test results show abnormal distribution of duration of surgery and length of stay.Spearman test results in significant positive correlation between duration of operation and length of stay (p=0.000).It is concluded that the duration of surgery correlates with the length of stay after laparoscopic resection of colon cancer at Dr. Kariadi hospital Semarang in theperiod of July 2010 – December 2013.
Keywords: Duration of surgery, length of stay

INTRODUCTION

Colorectal cancer has become the third most popular cancer in the world with 1.24 million patients in 2008. Adenocarcinoma makes up 95% of all colorectal cancer cases, and the others are mucinous carcinoma and adenosquamous.(1)Colorectal cancer in Indonesia has also become the third most popular with a ratio of1.8:100,000 citizen (Depkes, 2006) and the number is predicted to rise significantly (2).

Screening substantially decreases the risk of colorectal cancer. Surgical technique on oncology has significant advances, and oncology radiation has increased the survival rate of patients (3). *Clinical Outcomes of Surgical Therapy (COST) Study Group*2004 comparedlaparoscopic colectomy and open laparotomy.Laparoscopy has becomes preferredsurgical method for patients with colorectal cancer. The advantages of this technique are minimal invasion, shorter recovery time, less scar formation, and less potential intestine obstruction (4). Estimation factors forsuccessfuloperation on colorectal cancer are very complicated, such as the duration of surgery and length of stay. Therefore, advanced research is needed to learn about laparoscopy as alternative surgical approach in colorectal cancer (5).

Dr. Kariadi hospital as referred center for surgery service of colorectal cancer in Central Java has been usinglaparoscopic surgery approach for many years.Valid scientific data is needed to support the development of laparoscopic surgery in Dr.Kariadi hospital especially in colon cancer by conducting research that compare laparoscopic surgery with open laparotomy of colorectal cancer atDr.Kariadi hospital.

Hypothesis in this research is that duration of surgery correlates with the length of stay in laparoscopiccolon cancerresection.

This research aims to prove that duration of surgery correlates with the length of stay after laparoscopicresection of colon cancer at Dr. Kariadi hospital Semarang from July 2010 to December 2013.

METHODS

This research used retrospective design with case control study. The research was conductedat Dr. Kariadi Hospital, Semarang, Central Java, Indonesia.

In this research, the target population was colon cancer patients who had been hospitalized atDr. Kariadi hospital Semarang. The study population was all patients who had undergone surgery a tdr. Kariadi hospital Semarang withinthe period of July 2010 – December 2013. Research subjectswere colorectal cancer patients at Dr. Kariadi hospital Semarang. The data were taken from hospital medical recordsunder criteria of colonic cancer patients who had been recorded in the medical record and undergone laparoscopic resection.The inclusion criteria included colon cancer patients with elective surgery. Exclusion criteria includednon-colon cancer patient, laparotomy conversion patient, and patient who died while admitted to the hospital.

Data processing included editing, coding, data entry, and cleaning. Once collected, the data wereprocessed and showed in the forms of table and boxplot. To know normality and homogeneityof the data, *Shapiro-Wilk*normality test was performed.The next step was *Spearman* correlation test. If P≤0.05 with 95% confidence interval, then there wasa significant correlation. Data analysis was done using SPSS software Ver. 15.0. for Windows.

RESULTS

This research was conducted in 1 month with 30 samples who had undergone laparoscopic resection of colon cancer. Four patients were excluded because of laparotomy conversion, thus making the number of sample to 26 patients (18 males and 8 females). The mean patient age was 53.62 years old with a standard deviation of 2.78. The most widely used type of surgerywas Miles procedure as much as 34.6%.

Normality test with Saphiro-Wilk results in abnormal distribution on duration of operation and length of stay. The abnormal distribution was indicatedby p<0.05. This process was followed with Spearman test.There was a significant positive correlation between duration of surgery and length of stay with a value of 0.689 (p=0.000).

Table 1. Gender distribution

	Male	**Female**	**Total**
Laparoscopic resection	18 (69.2%)	8 (30.8%)	26 (100%)

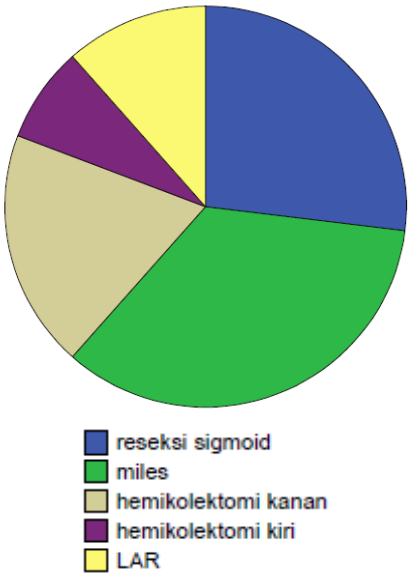

Figure 1. Operation type presentation

Normality test with Saphiro-Wilk results in abnormal distribution in duration of surgery and length of stay. The abnormal distribution was shown with $p<0.05$. The data were then processed with Spearman test.There was a significant positive correlation between duration of surgeryand length of stay with a value of 0.689 ($p=0.000$).

DISCUSSION

The statistical result in this research proves that patients'length of stay after laparoscopic resection of colon cancer is affected by the duration of surgery, and they have significant relationship.The theory shows that length of stay is influenced by duration of surgery, but there is no research that shows a correlation between the result of laparoscopic resection of colon cancer and the length of stay.

Laparoscopic resection is expected to give positive results for patient. Case reports about operation resultsareplenty, but no report proves that all operation results correlate with length of stay or only some predictor factors.

The duration of surgery correlates with the length of stay after laparoscopic resection of colonic cancer in Dr. Kariadi hospital Semarang within the period of July 2010 – December 2013.

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