

มะเร็งลำไส้ใหญ่ในโรงพยาบาลศรีนครินทร์ จ.ขอนแก่น

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Review of Colorectal Cancer Management at Srinagarind Hospital, Khon Kaen, Thailand

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Objective : To review the management of colorectal cancer patient by the Department of Surgery, faculty of Medicine, Khon Kaen University.

Design : Retrospective, descriptive study.

Setting : Department of Surgery, Srinagarind Hospital, Faculty of Medicine, Khon Kaen University.

Subjects : All patients who underwent colorectal cancer surgery between January 1993 and December 1997.

Data collection : From medical records, endoscopic notes, radiographic reports, operative notes and pathological reports.

Measurement : Descriptive statistics, χ^2 -test and Kaplan-Meier survival techniques.

Results : Among the 136 patients reviewed, no asymptomatic patients were found. The male to female ratio was 1.34 : 1. The median age was 58 years (range 17 to 94). Emergency operations represented 10% of cases while elective operations made up the balance. Eight patients (6%) had Duke's Stage A lesions, 27% Stage B, 36% Stage C and 31% Stage D. Most patients (59%) had lesions of the sigmoid colon or lower. Nine patients (6.6%) died during the postoperative period. The overall 5-year survival rate following colorectal surgery was 32%.

Conclusions : The management of colorectal cancer by the Department of Surgery was acceptable when compared to the postoperative mortality, complications and 5-year survival rate in other studies.

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Colorectal cancer is the third most common type in Thai males after liver and lung cancer and the fifth most common in Thai females after cancers of the cervix, breast, liver and lungs. The highest incidence for both sexes is in Bangkok (ASR = 11.3) and the lowest incidence is in Songkhla (ASR = 4.2). In Khon Kaen, the incidence is ASR=6.2¹

Although the Cancer Unit of Srinagarind Hospital reported on colorectal cancer to the Annual Tumor Registry, our report here provides further details that would allow an evaluation of the management of colorectal cancer by the Department of Surgery, Srinagarind Hospital.²⁻⁴

Patients and methods

Data were collected retrospectively from the case records of 136 consecutive patients who underwent colorectal cancer surgery between January 1993 and December 1997 at Srinagarind Hospital, Faculty of

Medicine, Khon Kaen University. The follow-up data on these patients were collected from outpatient records and reports done after at least 24 months after treatment. We lost contact with ten patients so could not complete the follow-up aspect of their files.

Definitions

Postoperative mortality : Death occurring within 30 days of the primary operative procedure.

Staging : This was based on the location of the tumour, its depth, its penetration to surrounding tissues and extent of metastasis. Tumors were staged according to the modified Duke's Classification (Turnbull, 1967): A, not beyond the muscularis propria; B, beyond the muscularis propria; C, involvement of the regional lymph nodes; D, distant metastasis.

Statistical methods

We used mainly descriptive statistics computed by Statistica for Windows release 5.0 (StatSoft Inc, Tulsa, OK,

USA). Variables were compared by the χ^2 -test. Kaplan-Meier survival techniques were used to estimate the percentage of patients undergoing surgery who were alive 2 and 5 years after surgery.

Results

The sex ratio was 1.34 : 1 (Male : Female). The median age was 58 years (ranging from 17 to 94). Surgery was elected by 122 patients (89.7%) while 14 (10.3%) underwent for emergency surgery.

The common presentations were a change in bowel habits (56.6%), anemia (19.9%), and masses (16.2%) (Table 1). More than half of all patients had lesions of the sigmoid colon or lower (Table 2). According to Duke's Staging, the cancers in eight patients (5.8%) were Stage A, 37 (27.2%) stage B and 49 (36.0%) stage C. The remaining 42 patients (30.9%) had Stage D cancers and were eligible for palliative procedures only. The majority of the patients (78%) had well differentiated cancers while 9 and 10%, respectively, had only poorly- and moderately-well-differentiated cancers. Signet-ring cell variety and mucinous carcinoma were seen in 1.5% equally.

Table 1 Presentations

| | Cases | % |
|------------------------|-------|------|
| Change in bowel habits | 77 | 56.6 |
| Anemia | 27 | 19.9 |
| Mass | 22 | 16.2 |
| Weight loss | 22 | 16.2 |
| Abdominal pain | 10 | 7.4 |
| Gut obstruction | 9 | 6.6 |
| Others | 15 | 11.0 |

Table 2 Site of lesions

| | Cases | % |
|------------------|-------|------|
| Cecum | 15 | 11.0 |
| Ascending colon | 14 | 10.3 |
| Transverse colon | 12 | 8.8 |
| Descending colon | 15 | 11.0 |
| Sigmoid colon | 47 | 34.6 |
| Rectum | 33 | 24.3 |

Details of operative procedures are outlined in Table 3. Postoperative death and comparing complications between elective and emergency cases are summarized in Table 4. The 30-day mortality rate following surgery was 21.4% for emergency and 4.9% for elective admissions. Overall, 9 patients (6.6%) died during the postoperative period. Among the 109 resected tumors followed by

Table 3 Operative procedures

| | Cases | % |
|-----------------------------|-------|------|
| Right hemicolectomy | 34 | 25.0 |
| Left hemicolectomy | 11 | 8.1 |
| Sigmoid colectomy | 35 | 25.7 |
| Anterior resection | 25 | 18.4 |
| Hartmann's resection | 4 | 2.9 |
| Abdomino-perineal resection | 10 | 7.4 |
| Subtotal colectomy | 6 | 4.4 |
| Bypass procedure | 3 | 2.2 |
| Colostomy only | 3 | 2.2 |
| Laparotomy only | 4 | 2.9 |
| Endoscopic fulguration | 1 | 0.7 |

Table 4 Postoperative death and complications

| | Elective (n=122) | Emergency (n=14) | p-value |
|------------------------|---------------------|---------------------|---------|
| 30-day mortality | 6 (4.9%) | 3 (21.4%) | 0.02* |
| Wound infection | 9 (7.4%) | 3 (21.4%) | 0.08 |
| Anastomotic dehiscence | 0 (0.0%) | 1 (7.1%) | 0.003* |
| Wound dehiscence | 0 (0.0%) | 1 (7.1%) | 0.003* |
| Others | 2 (1.6%) | 0 (0.0%) | 0.1 |

*Statistically significant

anastomosis, only one case developed a clinical anastomotic dehiscence in the emergency setting. There were no cases of wound dehiscence in the elective setting, but one in the emergency setting.

The overall and disease-related 2-year and 5-year survival figures are shown in Table 5. The overall 5-year survival rate following colorectal cancer surgery was 32%.

Table 5 Survival following colorectal cancer surgery

| | 2-year survival (%) | 5-year survival (%) | Median survival time (month) |
|----------|---------------------------|---------------------------|------------------------------------|
| Overall | 54 (50-58) | 32 (27-37) | 29.0 |
| Dukes' A | 100 | 62 (45-79) | 62.1 |
| Dukes' B | 75 (68-82) | 44 (33-55) | 48.5 |
| Dukes' C | 63 (56-70) | 38 (29-47) | 33.7 |
| Dukes' D | 19 (13-25) | 3 (1-5) | 8.0 |

Values in parentheses represent the 95% confidence intervals.

Discussion

In general, the distribution of lesions in our study agreed with other studies.⁵⁻⁹ Patients presenting with early-stage disease (Dukes' A) have a better chance of

survival. Most studies, including ours, reported Stage A tumours in less than 10% of cases.^{6,9-12} Patients presenting at an early-stage of the disease and fewer patients presenting as emergencies explain the improved survival of patients presenting with colorectal cancers.¹³⁻¹⁴

The overall mortality rate following colorectal cancer surgery in this series was 6.6%. Postoperative mortality figures range from around 2% to nearly 20%.^{7,14-17} The clinical anastomotic leak rate of 1% in this series is low but similar to other studies.^{7,10,14}

Comparing survival outcomes among the different studies should be made with caution because of the specific epidemiological biases and the lack of consensus as to how these figures should be calculated and presented. Notwithstanding the disease-related 5-year survival rates of 32% for all patients in our study compare favorably with other studies,¹⁸⁻²⁴ especially considering that one-third of all patients were classified as having Duke's D tumors.²⁵

Conclusions

In view of the low postoperative mortality, few complications and a relatively high 5-year survival rate, the management of colorectal cancer by the Department of Surgery, Srinagarind Hospital, Khon Kaen University Thailand, compares favorably with treatment elsewhere.

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