Locoregional recurrence (non hepatic abdominal recurrence) of rectal cancer

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Thirty percent of deaths are related to locoregional recurrence. All patients with nonhepatic abdominal recurrence (NHAR) were considered as having locoregional failure. The aims of this study are firstly to retrospectively evaluate the results of potentially curative resection and palliative treatment modalities for a group of 25 patients with NHAR from rectal cancer. The second aim is to determine the effectiveness of R3 resection in these patients in terms of survival. In this study we have followed 25 patients with NHAR of which 10 were able to undergo potentially curative salvage resection, whilst the remaining 15 had either a palliative (R2) or no resection. The goals of treatment for recurrent rectal cancer are palliation of symptoms, a good quality of life, and if possible, cure with a low rate of treatment-related complications. Indications for salvage surgery depend on several factors in cluding the extent of disease, the presence of concomitant illness and the surgeons experience. Systemic disease, systemic disease with peritoneal implants, multiple hepatic metastases, or extensive pelvic involvement preclude surgical treatment for cure. Curative and non-curative surgical procedures were performed with acceptable complications in the series presented here. The mean survival for the group undergoing R0 resection was 50 months versus 55 months for the group undergoing R1 resection (not significant). Mean survival were 7.3 and 6 months in the groups undergoing R2, NR and NS respectively. The 5-year survival for the 10 patients who had potentially curative resection was 30 per cent versus 0 per cent for 15 patients who had non-curative procedures (p=0.001). There was 1 post-operative 30 day mortality in the series of 19 patients who underwent surgery. Five patients (6 per cent) developed one or more post-operative complications. Two of them required reoperation.

Key words: rectal, cancer, locoregional, recurrence

INTRODUCTION

Thirty percent of deaths are related to locoregional recurrence. Locoregional recurrence is defined as recurrence in the tumor bed, regional nodes, adjoining structures, anastomosis, pelvis, perineum and surgical scars. It can range from small isolated failures in the anastomosis to diffuse involvement of the peritoneal cavity, pelvis or the wall of the abdomen. Furthermore, it has been previously reported that in 70-90 per cent of patients locoregional recurrence is associated with peritoneal, metastatic or plurimetastatic deposits. All patients with nonhepatic abdominal recurrence (NHAR) were considered as having locoregional failure. There is no standard treatment for nonhepatic abdominal recurrent rectal cancer. Depending on the primary treatment, many therapeutic modalities have been used. Surgical resection although not always curative, can provide good palliation of pain, obstruction, perforation, bleeding, and sepsis. For patients who experience recurrence after curative surgery for rectal cancer, the choice of therapy is between palliative treatment and salvage surgery. Salvage surgery with macroscopic tumor resection has been described in selected patients.

The aims of this study are firstly to retrospectively evaluate the results of potentially curative resection and palliative treatment modalities for a group of 25 patients with NHAR from rectal cancer. The second aim is to determine the effectiveness of R3 resection in these patients in terms of survival.

PATIENTS AND METHODS

NHAR was defined as any tumor recurrence in the abdomen excluding the liver with or without concomitant distant metastases. 25 patients with NHAR of which 10 were able to undergo potentially curative salvage resection, whilst the remaining 15 had either a palliative (R2) or no resection. Potentially curative resection or salvage surgery was defined as surgery for recurrent disease in
which no macroscopic tumor was left behind. Potentially curative resection was classified as R0 (resection with no residual tumor) and R1 (resection with microscopic residual tumor) after surgery by histopathological examination. Salvage surgery ranged from limited local resection to extensive surgery including pelvic exenteration and peritoneectomy procedures. Types of surgery performed for these 25 patients are summarized in Tables 1. Ten (40 per cent) patients who had salvage surgery (groups R0, R1) were given systemic chemotherapy postoperatively. Others had supportive treatment if they needed. Following the surgery all patients who had undergone potentially curative salvage surgery were closely followed-up. (Table 1.)

A two-sided chi-squared or Fisher exact test was used to assess differences in proportions. The probability of treatment failure, loco-regional control and overall survival were calculated by the Kaplan-Meier product limit method. The log-rank test was used for comparison, and all time estimates were done using the date of surgery as initial value. The level of statistical significance was set at 5%.

RESULTS

There was 1 post-operative 30 day mortality in the series of 19 patients who underwent surgery. Five patients (6 per cent) developed one or more post-operative complications (Table 2). Two of them required reoperation. The mean hospital stay was 26 days (range 7-54).

Mean survival times for each group are summarized in Table 3. The mean survival for the group undergoing R0 resection was 50 months versus 55 months for the group undergoing R1 resection (not significant). Mean survival were 7.3 and 6 months in the groups undergoing R2, NR and NS respectively. The 5-year survival for the 10 patients who had potentially curative resection was 30 per cent versus 0 per cent for 15 patients who had non-curate procedures (p=0.001).

Of the 25 patients with NHAR, 4 (16 per cent) were asymptomatic when recurrence was diagnosed. All 4 (100 per cent), underwent salvage - surgery (R0 or R1 resection). Of the remaining 21 patients with symptoms, only 6 (23 per cent) underwent salvage resection (p=0.001).

DISCUSSION

The goals of treatment for recurrent rectal cancer are palliation of symptoms, a good quality of life, and if possible, cure with a low rate of treatment-related complications. Indications for salvage surgery depend on several factors including the extent of disease, the presence of concomitant illness and the surgeons experience. Systemic disease, systemic disease with peritoneal implants, multiple hepatic metastases, or extensive pelvic involvement preclude surgical treatment for cure. Curative and noncurative surgical procedures were performed with acceptable complications in the series presented here.

When NHAR was detected, all patients were considered a potential candidate for surgery. After the clinical and radiological evaluation, resection with curative intent was planned for 14 patients. Resection of all macroscopic disease was achieved in 10 cases (7 patients R0 and 3 patients R1). 4 patients only R2 resection could be achieved due to either anatomical constraints or more widespread disease than expected.

The reported resection rate for local recurrence ranges from 25 to 75 per cent. The R0 and R1 resection rate was 40 percent in our series. The ability to perform a curative resection for recurrent rectal cancer is the only factor that has been shown consistently to have an impact on overall survival.

The 5-year overall survival was 30 per cent for patients who had salvage surgery. There was no significant difference in survival between those patients who had a R0 compared to those who had a R1 resection. However, there was a highly significant difference in survival for those patients who underwent potentially curative resection (R0 or R1) compared to those who underwent noncurative procedures. Therefore, our results suggest that the most important objective of salvage surgery is to remove all macroscopic disease, achieving either a R0 or R1 resection with the addition of adjuvant therapy.
Detecting patients with recurrence at an early asymptomatic phase provides a greater chance for salvage surgery compared to patients in whom recurrence is symptomatic. The St. Mark’s group found that longer survival was associated with absence of severe symptoms. Our series confirmed the importance of detection of recurrent disease at an early asymptomatic phase when it is still amenable to either R0 or R1 resection and thus justifies an aggressive follow-up policy.

**CONCLUSION**

Salvage surgery for appropriately selected patients with NHAR following curative rectal cancer resection lengthens survival and provides a possible cure for nearly one-third of patients. Our results suggest that surgeons should aim to achieve macroscopic clearance of tumor. The survival looks to be nearly similar in those patients in whom either R0 or R1 resection is achieved.

**REFERENCES**