

# Colorectal Surgery Division

## Introduction

The mission of the Colorectal Surgery Division is to provide state-of-the-art surgery for patients with colorectal cancer and allied diseases, to perform clinical research to improve the care for patients, and to train young surgeons to be an expert at colorectal surgery. We treat a vast spectrum of colorectal diseases amenable to surgical intervention, especially early- and advanced-stage primary or recurrent colorectal cancers (including local recurrence and liver metastasis). We have multi-disciplinary meetings with medical oncologists to discuss the development of more effective disease control.

## Routine activities

In our division there are four staff surgeons, one chief resident, and four residents. About 500 patients with colorectal cancer and allied diseases operated annually. They are responsible for pre- and post-operative care, as well as follow-up in the outpatients.

Everyday we have a morning conference and ward round to discuss inpatient care. Thereafter we start surgery, outpatient clinic, or conduct research activities. Every Tuesday evening, we attend a general assembly of surgical divisions and discuss about surgical oncologic issues arising in each surgical specialty. Thereafter, a colorectal conference is held together with endoscopists and radiologists. This allows us to address endoscopic and radiological findings for preoperative patients and clarify treatment planning by means of establishing diagnosis and evaluating clinical stage.

Every Friday evening, we have a colorectal surgical meeting which focuses on the treatment planning for inpatients. Firstly, we discuss with medical oncologists regarding chemotherapy for patients with advanced disease or recurrent cancers. Preoperative cases and inpatient care are then discussed in detail.

Our principles for colorectal cancer treatment are as follows:

Early stage colorectal cancers are firstly treated with endoscopic mucosal resection. If there is at least one of pathologic risk factors for metastasis such as massive submucosal invasion, lymphatic invasion, venous invasion, or poor differentiation, additional colorectal resection is performed with laparoscopic surgery for colon cancer and open surgery for rectal cancer. Patients without such risk factors are followed. Early stage tumors that are not suitable for endoscopic mucosal resection are treated with laparoscopic surgery for colon cancer and open surgery or local excision for rectal cancer.

Advanced colorectal cancers are treated by conventional open surgery with extended lymph node dissection (D3). For clinical-stage-I lower rectal cancers, mesorectal excision (D1) is performed with complete preservation of the pelvic autonomic nerves. Clinical-stage-II or -III lower rectal cancers are treated with extended lateral pelvic lymph node dissection (D3), with complete or partial preservation of the pelvic autonomic nerves. If contiguous organs are involved, they are resected en bloc.

Liver metastasis is resected with assistance of hepatobiliary surgeons if long term survival is expected. Local recurrences are also resected if long term survival with acceptable quality of life is expected.

## Research activities

We are conducting randomized controlled studies (JCOG-0212, NSAS-CC01, JCOG-0205; JCOG-0404; see below). These studies will clarify optimal surgery for c-stage II or III colorectal cancer and best adjuvant therapy for p-stage-III colorectal cancer, respectively.

We have done several studies on chemoprevention agents including indomethacin, nimesulide, and

tiracoxib for colorectal cancer. On the basis of these studies, we are evaluating a chemoprevention agent for colorectal cancer in double-blind placebo-controlled randomized trials (see below).

In prospective fashion, several new surgical procedures are being evaluated: (1) intersphincteric resection for rectal cancer invading the anal canal (since March 1999); (2) pouch procedures (the J-pouch and the transverse coloplasty pouch) for coloanal canal or coloanal anastomosis; (3) laparoscopic surgery for colorectal cancer.

In cooperation with radiologists, prospective studies on preoperative staging of rectal cancer using helical CT and thin section MRI with phased array coil have been done. We are currently trying to further our experience.

## Clinical trials

1. A randomized controlled trial comparing mesorectal excision with extended lateral pelvic lymph node dissection (D3) for c-stage-II or -III lower rectal cancers (JCOG 0212)  
In "the Guidelines 2000 for Colon and Rectal Cancer Surgery" of the USA, D3 is recommended when lateral pelvic lymph node involvement is clinically suspected. There is insufficient evidence to support the efficacy of D3 in the context of patients without suspected lateral pelvic lymph node involvement. This study was started in June 2003 and should answer this long-standing question.

2. National Surgical Adjuvant Study of Colorectal Cancer 01 (NSAS-CC01)  
We compared 1-year-oral UFT after surgery vs. surgery alone for p-stage III colorectal cancer patients. A planned interim analysis at median follow-up time of 3 years revealed significant improvement in relapse-free survival and overall survival of rectal cancer patients. These results were presented at 2004 ASCO meeting. Results for colonic cancer are still immature.
3. A randomized controlled study comparing adjuvant 6-month oral UFT+LV vs. intravenous 5-FU+I-LV for p-stage-III colorectal cancer patients (JCOG 0205)  
This study was started in February 2003, and should clarify the best adjuvant chemotherapy for p-stage-III colorectal cancer.
4. Randomized double-blind placebo-controlled study of effects of bovine lactoferrin containing food on suppression of colorectal carcinogenesis.  
The study if lactoferrin is effective for treatment of small (< 6 mm) colorectal adenomas in patients' is still ongoing.
5. A randomized controlled study comparing laparoscopic versus open colectomy for stage-II/III colon cancer patients (JCOG0404)  
This study was started in December 2004 and should answer the question, "Laparoscopic colectomy is oncologically comparable to open colectomy or not."

● T. Akasu ●

	2001	2002	2003	2004
colon	203	226	291	248
rectal	152	164	207	208
liver	28	39	29	36
local/other	31	24	10	5
total	414	453	537	497