

## Laparoscopic Surgery in Distal Rectal Cancer with CCRT

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The mortality due to colorectal cancer was 13.5 per 100,000 in 2007. In South Korea, the age—adjusted incidence rates of colorectal cancer has increased by 40% within the past decade. Between 1995 and 2004, we did case-control studies for the 1,290 patients of Hallym University and another hospital. Colorectal cancer cases were found to consume more alcohol, to be more likely smokers and less likely to participate in vigorous activity (OR; 1.54, 1.32 and 0.85, respectively).

More than half cases of colorectal cancer were in rectum. But anatomy of deep pelvis, narrow margin and invasion into neighbour organ are obstacles for curative radical resection of distal rectal cancer. Uppsala study suggested that preoperative radiation for the rectal cancer decreased the regional recurrences without complications. We compared the results of laparoscopic resection (n=42) with conventional curative radical resection (n=14) in the patients who underwent preoperative CCRT. A continued infusion of 5FU plus leucovorin and radiotherapy (5.04 Gy) in 28 fractions was given as preoperative CCRT. They underwent D2 radical resection with total mesorectal excision and autonomic nerve preservation for the irradiated rectal cancer in four weeks. The y- stage of the cancer was down in 71%. Disease free survival was not different between both groups. Ileus, voiding difficulty, leakage and sexual function after surgery were not different. Laparoscopic surgery with preoperative chemo-radiation is a good tactic for the treatment..

Sphincter preservation with intersphincteric resection was reported in distal rectal cancer to avoid permanent colostomy. Low BMI in Asian patients provides more chance to do sphincter saving operations such as intersphincteric resection by laparoscopy. But local control of the cancer and functional results after the operation were controversial. We evaluated the potential risk after intersphincteric resection in the patients (n= 48, conventional; laparoscopy= 16:32). The distance between the anal verge and lower edge of the cancer was  $3.4 \pm 0.8$  cm. Mean BMI was 23. The patients complained intolerable anal incontinence in 35% (Kirwan's class >2). Complications such as urinary incontinence and sexual dysfunction were not increased. Laparoscopic intersphincteric resection did not show any difference in survival and complications. Careful selection of intersphincteric resection is required due to poor continence.