SUMMARY and CONCLUSION

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The recurrent and residual rectal cancers are the most common problems encounting the patient and surgeon. It present about from 2% : 25% with increase frequency in male than in female.

The local recurrence arises mainly as a result of incomplete surgical resection and that failure to remove all malignant tissue.

Patients with rectal tumors which were fixed or partly fixed at operation had a reduced chance of survival compared with patients who had mobile growth irrespective of the overall stage of the tumor a proportion of tumor were, however, tethered by inflammatory adhesion only and patients with these tumor should fare better than those with tumor fixed by extramural malignant spread. An inflammatory reaction around a rectal tumor may represent an immunological response to the carcinoma .

The local recurrence or the development of distant metastases or peritoneal carcinosis may be caused by cells that have already been seeded at the time of operation but cannot be detected. So most surgeons utilized some form of antiseptic antitumor agent to wash out the lumen of the bowel at the site of the anastomosis in order to remove exfoliated malignant cells and hopefully reduce local recurrence.

It was found that recurrence of rectal cancer was influenced by the site of the original tumor. The incidence of pelvic recurrence was related to the original site of the primary rectal tumor being increased for low and mid rectal cancers as compared with cancers at or above 12 cm from the anal verge

Venous and neural invasion are risk factors that may predict recurrence pattern of rectal cancer. It was found that venous invasion may predict distant metastases while neural

invasion may express a more local aggressive growth pattern leading to local recurrence

The obstruction as a clinical presentation has always been associated with an ominous prognosis, and individuals who present with an obstructing rectal cancer usually have a much higher surgical and tumor related mortality rate.

Symptoms of recurrence might include abdominal, pelvic, perineal, or sciatic pain; change in bowel habits; obstruction; anorexia; weight loss; malaise; and rectal bleeding or discharge.

Despite the fact that an ideal follow up schedule for the early detection of recurrent rectal carcinoma is still a matter of debate, there is a strong evidence that CEA monitoring should be a major examination in the early diagnosis of recurrence.

.The liver is the organ most often involved with recurrence. accordingly, many efforts have been directed toward detection of early enzymatic abnormalities of liver function. unfortunately, there is not yet any specific enzymatic pattern of liver metastases, but in many studies it has been shown that the blood levels of AP,(Alkaline Phosphatase) GGT,(Gama Glutamil Transverase) 5,N,(5 Nucleo oxidase) LDH, (Lactate De-Hydrogenase) are progressively increased

The measurement of acute phase proteins in serum has been suggested as useful tumor marker and that increased C reactive protein is associated with recurrence and reduced survival in colorectal cancer.

Good quality barium enema examination or colonoscopy should be performed before the operation if possible because 3-5% of patients may have synchronous rectal cancer that could be resected as apart of the primary operation.

Preoperative colonoscopy may influence the planned resection in 9-16% of patients and prevent synchronous tumors being missed, while postoperative colonoscopy may detect early recurrences that are amenable to resection and permit removal of metachronous adenomas before the development of invasive carcinoma

Differential diagnosis between postoperative fibrosis and local recurrence may be difficult for both CT and transrectal ultrasound. To reduce the number of false positive results, CT should performed in the immediate postoperative period to freeze the new anatomic situation and to allow comparison with later scans. CT directed percutaneous needle biopsy confirmed the diagnosis of postoperative fibrosis

Enhanced dynamic CT and CT scan with Lipidol (EOE-13) provides a more accurate image of hepatic metastases than does routine CT examination, with detection of lesions 1 cm in size. However, the sensitivity and specificity of CT deteriorate when the diameter of suspected lesions is less than 1 cm. because of its cost, it should be used as a confirmatory rather than a first line diagnostic procedure.

Transrectal ultrasound is an effective method in the preoperative staging of rectal cancer. It provides an assessment of wall invasion by rectal cancer more accurately than computed tomography

MRI has been used to detect local recurrence of rectal cancer and preliminary work suggests that it may be of use in differentiating between granulation tissue and tumor.

Positron Emission Tomography (PET) was used in the follow up of patients with colorectal malignancies to differentiate between recurrent colorectal tumors and scars.

The patient who presents with only locally recurrent rectal cancer and no demonstrable extrapelvic disease is the ultimate challenge in the management of rectal cancers

There are generally three ways of differentiating postoperative changes from recurrent tumor. **The first** is to document a change in the lesion, such as increase in size, over time; **the second** is invasion of the adjacent organs; and finally, **the third** is histologic evidence obtained from CT-guided biopsies.

The cornerstone of treatment for locally recurrent rectal cancer with a curative intent must be surgery. However, it has been reported that surgery alone results in a high local and systemic failure rate. This has been the rationale for a multimodality approach to the treatment using preoperative irradiation plus concomitant chemotherapy and maximal resection for local control and chemotherapy to address the possibility of systemic failure.

It is imperative that the first step in planning for surgery of this magnitude includes an extensive discussion and explanation of the planned procedure with the patient and relatives. Sphincter-saving surgery is most often not indicated in cases of local recurrence. Therefore, within the discussion must be the acceptance of a permanent colostomy. In addition, an ileal conduit or a sacrectomy in situations of anterior or posterior fixation (or both) may be required.

Anterior lesions demonstrate the greatest diversity between men and women. In women, anterior fixation may require little more than en bloc resection of the rectum, uterus, and posterior wall of the vagina. In contrast, anterior fixation in a narrow male pelvis is more likely to require cystectomy or cystoprostatectomy.

The ideal procedure for tumors with posterior fixation is a distal sacrectomy with the proximal limit around S2–3. A

resection more proximal than S2 may require stabilization of the sacroiliac joints with internal fixation and other reconstructive methods and is not indicated .

Once the specimen is resected, it is reviewed by the pathologist, surgeon, and radiation oncologist to determine margins and the need for IOERT. As indicated, additional biopsies may be required to define sites of marginal resection. When IOERT is required, a Lucite applicator is positioned in the pelvis to target tissues at risk.