Introduction

Introduction

The natural history and recurrence pattern of rectal cancer is unusual in its high frequency of loco-regional failure (25-30%). This unusual recurrence rate is the result of (1) the loss of the serosa in the rectum that acts as a barrier to transmural tumour penetration; and (2) the rich lymphatic supply of the pelvic side wall adjacent to the rectum, which facilitates spread of tumour cells into surgically inaccessible tissue.***(Sack and Rothman, 2000).***

In the series of the National Cancer Institute NCI Cairo University, rectal cancer is ranked the forth position among other malignancies. In males it is the third most common tumour after bladder cancer and lymphoma whereas in females it is the third most common tumour after cancer breast and lymphoma as well ***(Bolkainy, 1991).***

Local recurrence (LR) was found to be the mode of postoperative recurrence seen most frequently in rectal cancer, comprising 34 to 45% of such recurrences. This LR continues to be a major problem following surgical treatment of rectal cancer and carries an extremely poor prognosis, more importantly, LR is seldom curable and produces debilitating symptoms which are difficult to palliate ***(Seow-Choen et al., 1998).***

Moreover, LR rates in most of these patients demonstrated improvement with adjuvant chemoradiotherapy to be approximately 20% on most optimistic calculations ***(Heald, 1995).***

Numerous approaches have been used in an attempt to reduce LR rates, these include total mesorectal excision, radical abdominopelvic lymphadenectomy, rectal stump irrigation with cytocidal agents, pre and

post operative radiotherapy and adjuvant chemotherapy *(Seow-Choen et al., 1998).*

It was observed that individual surgeons vary in their outcome from less than 10% LR to more than 50%. ***So it is therefore,*** within the power of the surgeon to double the expectation of cure and reduce by 5 folds or more the incidence of LR and improvement of surgical technique can expect to achieve up to 80% improvement *(Heald, 1995).*

In no other cancer have such wide variation in outcome been observed by anyone. There is thus no more important issue in rectal cancer management than the question "***what is it that the best surgeons are doing that the worst are failing to do"*** or ***" what determines success or failure?"(Heald, 1995).***

In 1908, Moynihan closed his paper on colorectal cancer with the statement ***"operations which merely go' wide of the disease' do not meet the necessities of the case we have not yet sufficiently realized the surgery of malignancy is not the surgery of organs, it is the anatomy of the lymphatic system" (Enker et al., 1979).***

Lymph node involvement in patients with colorectal carcinoma is the most important prognostic factor. Survival is also related to the number and site of metastatic nodes *(Ratto et al., 1999).*

Radical, en bloc, abdominopelvic lymphadenectomy (RAPL) for cancer rectum is based on removal of all potentially involved lymphatic tissue will yield lower rate of LR and improved survival *(Harnsberger et al., 1994).*