INTRODUCTION

Rectal cancers are the second most common gastero-intestinal carcinoma, after colon cancers, and have the best prognosis. The five year survival rate is approximately 50%. Almost all rectal cancers are primary adenocrcinomas.

Through clinical examination, endorectal ultrasound, computed tomography, and magnetic resonance imaging are decisive tools in the prethreraputic work up of patients with rectal cancer ***(Chirury, 2004).***

Preoperative imaging studies are necessary for recommending preoperative adjuvant therapy and surgical approach when treating rectal cancer ***(Kwok et al., 2000).***

Endorectal ultrasound (EUS) has become an extremely useful diagnostic tool in the management of both benign and malignant anorectal disorders. Initially used for evaluation of prostate nodules but after the improvement of the equipment and techniques, EUS is now used to stage rectal tumors (as regard its infiltration to the wall or the surroundings or lymph nodal metastasis) and follow up of these patients by surveying the operative site for signs of recurrence ***(Finne, 1995).***

Endorectal ultrasound has proven to be of some use for staging rectal cancer, diagnosing recurrent loco-regional diseases at an early stage ***(Taylor and Youker, 1991).***

Endorectal sonography links much of the diagnostic potential of endoscopy and C.T. it is simple to execute, can be rapidly carried out, is

well tolerated, dose not involve ionizing radiation and is inexpensive. Endorecal sonography has the distinct advantage of revealing the surrounding tissue, this diagnosing recurrent locoregional disease at an early stage. Endocrectal sonography allows easier differentiation of fibrosis and recurrences as relapsing cancer tend to appear hypoechoic and fibrosis hypoechoic. The usefulness of post-operative endorectal sonography has been confirmed in a number of retrospective and prospective studies with accuracy rates of 80-85% in detecting local neoplastic recurrence ***(Rotondoano et al., 1997).***

Most importantly, endorectal snography is the single modality able to intently asymptomatic recurrence in a significant number of cases, thus allowing these patients to undergo further curative surgery. The superiority of endorectal sonography probably stems from the fact that distinct ultrasound planes between organs can be readily visualized sonographically, and the degree of invasion can be interpreted since there is again a disruption of these ultrasonic layers to indicate the level of infiltration ***(Rotondano et al., 1997).***

MRI and positron emission computed tomography are used in diagnosis of rectal carcinoma but their superiority is to differentiate between tumor recurrence and fibrosis.