INTRODUCTION

Renal cell carcinoma (RCC) is relatively rare tumor. It accounts for 3% of all adult malignancies, approximately 18,000 new cases of were predicted to occur in 1984, but it is the third most common urologic malignancy after cancer prostate *(Silverberg and Lubera, 1989)*.

The pathology of RCC determines the line of treatment, for example, clear cell carcinoma arises in an expansible pattern while granular type arise in infiltrating one it is suggested correctly that peripheral encapsulated neoplasm could be excised locally while leaving a margin of healthy parenchyma around the tumour *(Bonsib, 1987)*.

The treatment modalities for renal cell carcinoma have to achieve two main goals which are, complete removing or destroying the tumour or tumors and perservation of adequate kidney function *(Steve, 2004)*.

Surgery remain the only effective method of treatment of primary renal carcinoma. Simple nephrectomy was practisized for decades but replaced by radical nephrectomy to increase surgical cure rate *(Robson, 1983)*.

The recent advances in diagnostic image have led to an increase in asymptomatic small renal cell carcinoma over last two decades, for that treatment modality other than radical nephrectomy is needed for preservation of kidney function which is (partial nephrectomy) that shows an excellent prognosis with those patient *(Yoshihiko et al., 2002)*.

Although laparoscopy for partial nephrectomy is an established procedure for benign disease when performed for removing a small renal cancers it is technically very difficult and still experimental and not standardized. So this method is not recommended for use in clinical practice and should only be performed in controlled prospective trials *(Gill; et al., 2002).*

Nephron sparing surgery is that type of surgery aiming at cancer cure with preservation of as much nephrons as possible, so there is no size limit for this surgery and the tumour must whenever possible be resected within a margin of healthy parenchyma. Thorough inspection of whole kidney before and after operation may help to avoid leaving distal multifocal metastasis, multiple frozen section biopsy is mandatory to be sure that good safety margin is taken *(Guan et al., 2003).*

Another line of treatment of RCC with nephron sparing is radio frequency ablation which is used in multiple small tumour and in patient with hereditary kidney cancer syndrome. To avoid multiple open surgeries *(Desai and Gill, 2002).*

Laparoscpic renal cryo ablation appears to be a safe surgical technique for destruction of renal masses as large as 4.7 cm in size with little evidence of injury to renal unit *(Matin et al., 1998).*

Despite the great success of partial nephrectomy in treating T_1 renal cell carcinoma, the indication of this procedure is limited such as situations that render patient anephric with subsequent immediate need for dialysis. From these conditions bilateral carcinoma or carcinoma of

solitary kidney. But nephron sparing is mandatory if carcinoma occur in live donner transplant kidney. The adjuvant therapy like chemotherapy, radio therapy and vaccine therapy have less promising results for various subtypes of RCC except for clear cell RCC ***(Lamb et al., 2003)***