

## INTRODUCTION

Colo-rectal cancer accounts for a large number of tumor related deaths .it represents a cancer entity that not only involves elderly but also an increasing number of younger patients. <sup>(1)</sup>

Because of the strong association between early detection of primary and recurrent tumors or metastases and prognosis, exact determination of the tumor burden is important for the clinical management .imaging methods available include endoscopy, barium enema, as well as CT and MRI. Although these methods have specific roles in the evaluation of patients with colorectal cancer, none are optimal since peritoneal metastasis might escape detection. <sup>(2)</sup>

Positron emission tomography (PET) with 2-{fluorine -18} fluoro-2deoxy-D-glucose (FDG) has been effective for the diagnosis of malignancies of the colorectal cancer.

However, lack of anatomic landmarks, variable physiologic uptake, and asymmetric FDG distribution in several altered physiologic states can confound image interpretation. <sup>(3)</sup>

Positron emission tomography /computed tomography (PET/CT)imaging increases the accuracy and certainty of locating lesions in colo-rectal cancer .more definitely normal and definitely abnormal lesions (and fewer probable and equivocal lesions )are identified with PET/CT than with PET alone. <sup>(4)</sup>

In colo-rectal cancer patients with recurrent disease, where surgical resection is planned, 18FDG/CT is not only helpful in evaluating the area of suspected disease.

But it will also detect unexpected sites of the disease to a change in management of the disease. <sup>(5)</sup>

Positron emission tomography/Computed Tomography (PET/CT) is an accurate technique in the detection of pelvic recurrence after surgical removal of rectal cancer. <sup>(6)</sup>

The only curative therapy is surgical resection, whereas oncologic intervention in patients with advance, inoperable cancer remains palliative at best. <sup>(7)</sup>