

## **SPECIFIC COMMENTS TO AUTHORS**

“Very good manuscript, well reviewed and presented, but with a few limitations without reviewing novel diagnostic imaging modalities of PET-CT, PET-MR, and Laparoscopic Ultrasound (LUS).”

### Answering reviewers: -

#### *PET scan*

The role of PET scan in routine staging of pancreatic cancer is controversial. Studies have shown data supporting the utility of PET scan in staging of pancreatic cancer<sup>[61-63]</sup>, whereas other studies have shown conflicting results<sup>[64, 65]</sup>. Use of 18F-fluorodeoxyglucose (FDG) positron emission tomography (PET) combined with CT (PET/CT) and MRI (PET/MRI) has generated interest in diagnosis, staging (lymph node involvement and metastasis)<sup>[66]</sup>, assessment of pathological grade<sup>[67]</sup>, assessment of treatment response, planning of radiation treatment, etc. <sup>[68-70]</sup>. There are certain advantages of PET/MRI over PET/CT such as lower radiation dose and superior soft tissue contrast<sup>[68]</sup>. However, the subgroup of patients with pancreatic cancer who will benefit from PET/CT or PET/MRI is not clearly understood. Hence, PET scan is not used routinely but only in certain select situations as illustrated in NCCN and European Society for Medical Oncology (ESMO) guidelines<sup>[71]</sup>.

#### *Staging laparoscopy*

The role of staging laparoscopy has evolved over time. The utility of staging laparoscopy relies on the pretext that small occult metastatic lesions can be missed by the available diagnostic imaging modalities and can be picked up by diagnostic laparoscopy. Hence, in certain clinical situations where the pre-test clinical probability of occult metastatic disease is high, staging laparoscopy can detect small sub-cm

metastatic lesions on the peritoneum and surface of the liver and upstage the disease from resectable to stage IV metastatic disease. This also helps in re-directing the focus to palliative chemotherapy rather than neoadjuvant treatment in preparation for eventual needless surgical resection. Ideal candidates who may benefit from diagnostic laparoscopy include large tumors (>3cm), tumors in the body and tail of pancreas, elevated CA 19-9 >1000, locally advanced but resectable disease, imaging suspicious for occult metastatic disease, etc. [72-74].

Routine use of laparoscopic ultrasound during staging laparoscopy has the potential of finding small metastatic lesions that can be missed by routine cross-sectional imaging or visual inspection during laparoscopy. When used in conjunction with laparoscopy, laparoscopic ultrasound can help in evaluation of primary tumors, peripancreatic vascular anatomy, detect small occult metastatic lesions and hence, change the surgical approach and prevent unnecessary radical surgery [75-79].