INTRODUCTION

Multidetector computed tomography is a form of computed tomography (CT) technology for diagnostic imaging. In MDCT, a two-dimensional array of detector elements replaces the linear array of detector elements used in conventional and helical CT scanners. This detector array permits to acquire multiple slices or sections simultaneously and greatly increases the speed of CT image acquisition.[1]

With the introduction of MDCT, the technique of CT imaging of the pancreas will be less complicated. MDCT provides the single phase technique which has been shown to have more advantages - such as time consuming and less exposure to radiation - in comparison with the dual phase technique.[2]

Further improvement has been achieved - over traditional CT - in detection of pancreatic lesions since the introduction of MDCT.[3] MDCT has been successfully used in imaging the pancreas because it provides excellent depiction of the details of pancreatic tissue and peripancreatic vessels and a high level of parenchymal enhancement.[4]

The introduction of MDCT and postprocessing techniques with 3D manipulation of the data set have greatly improved imaging of the pancreas & facilitates early detection of small pancreatic lesions.[5]

The use of MDCT improves the resolution of sagittal and coronal multiplanar reformatted images of the vascular structures. This advantage helps in accurate staging of pancreatic tumors especially pancreatic carcinoma which is a leading cause of cancer death.[6]

MDCT is an accurate technique for assessment of surgical resectability of a suspected pancreatic neoplasm providing optimal tumor-to-pancreas contrast and

maximal pancreatic parenchymal and peripancreatic vascular enhancement.[7]

MDCT has resulted in development of CT applications such as CT angiography which increases the value of the negative prediction of tumour respectability to 96% compared with 70% for conventional axial CT alone.[8]

MDCT plays an important role in the case of Islet cell tumors (ICTs) which are very small highly vascular tumors. Nonfunctioning type is diagnosed incidentally, however functioning type is diagnosed by the detection of elevated hormonal levels. The main role of MDCT is to locate and map the number and size of these tumours.[9]

The liver is a common site for pancreatic metastases, and their detection is critical for accurate staging. MDCT allows visualization of the entire liver and the whole upper abdomen during the portal phase for accurate identification of liver metastases of pancreatic origin and peritoneal seeding.[10]