SUMMARY AND CONCLUSION

The advantages of MDCT, which include high spatial resolution, rapid data acquisition and various postprocessing techniques, are suited perfectly for imaging of the pancreas and the complex peripancre-atic anatomy. Excellent visualization of the pancreatic parenchyma in various phases of contrast enhance-ment facilitates early detection of small pancreatic lesions. Postprocessing techniques not only facilitate accurate staging of pancreatic cancer but also provide a vascular road map for the operating surgeon.

Over*90%* of the patients with pancreatic carcinoma die- within 1 year of diagnosis. Tumor stage, microscopic grade and tumor size represent the factors that determine the prognosis of pancreatic neoplasms. Small tumors have the greatest chance of curative operation and the longest survival. The pancreatic cancer is not hindered by anatomical borders and therefore rapidly involves the extra pancreatic tissues.

Surgical resection is the only curative measure for pancreatic cancer. It depends on early diagnosis before peripancreatic vascular invasion.

The introduction of multidetector CT with three dimensional post processing imaging techniques allows accurate imaging of the pancreas and peripancreatic structures that displays the anatomy and disease entity in an orientation that simulates a direct surgical approach.

Multislice computed tomography allows examination of the pancreas with thin slice thickness (1mm) or less during a -short time of a single breath hold with high quality images. This allows application of different pancreatic scanning protocols, the best of which is three phase protocol. The arterial phase is helpful for detection of hypervascular tumors, and obtaining CT angiography of peripancreatic vasculature to determine vascular involvement. The parenchymatous and portal venous phases are important for detection of hypovascular tumors that represent nearly all pancreatic carcinoma, and for detection of liver metastasis.

The pancreas has a tortuous course with abundant vessels around it, which is difficult for imaging modalities to display the whole pancreas or these vessels in one slice. It is also important to visualize the cholangiopancreatic ducts for

diagnosing and evaluating the local staging of pancreatic tumors. Curved planar MDCT can delineate the curved vascular and bile duct structures and display its whole course in one cross-section image. The unique anatomic information provided by curved multiplanar reformations, highlight critical anatomic and pathologic relationships, which are useful for surgical planning.

Other post processing techniques as volume rendering, maximum intensity projection, and minimum intensity projection are also very helpful for evaluation of the tumors and relation to peripancreatic tissues and better assessment of either hypo- or hyper-attenuating structures by choosing the Hounsefield unit range of structures that wanted to be displayed.

To conclude, contrast-enhanced multiphase pancreatic imaging by rnultidetector-row helical computed tomography (MDCT) with its. post processing techniques represents the image of choice for diagnosis and local staging of pancreatic lesions.