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Correlation of ultrasound and computed tomography measurements of the pancreas in a normal adult Nigerian population

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Background: Abdominal ultrasound and computed tomography (CT) utilization in pancreatic imaging has been found invaluable in the evaluation of pancreatic lesions. Although the gold standard modality for imaging of pancreas, CT is fraught with the limitations of radiation risk, cost and availability especially in developing countries. Ultrasound (US) imaging of the pancreas is cost effective, readily available with no radiation risk but it is operator-dependent and limited by bowel gas. Comparative study of CT and US biometry of pancreas in normal adult population in Lagos State Nigeria has not been established.

Method: A prospective cross-sectional study of 150 apparently normal adult patients who underwent both CT scan and ultrasonography (US) at Clinix Healthcare llupeju, Lagos State, and who met the inclusion criteria, was carried out. Uni-dimensional (Anterior-posterior-AP) measurements of the pancreatic head, body and tail were obtained on both CT and US at right angles to the longitudinal axis of the organ.

Results: On US, the mean AP dimensions of the pancreas head, body, and tail in the studied population were 25.10 ± 2.75 mm, 15.98 ± 1.86 mm, and 13.50 ± 1.53 mm respectively. On CT, the mean \pm SD AP pancreas dimensions of head, body, and tail in the studied population were 26.77 ± 2.68 mm, 21.19 ± 2.12 mm, and 17.25 ± 2.12 mm respectively.

Conclusion: Comparative study of pancreas size measurements on US and CT showed that AP dimensions of the pancreas segments measured on CT were significantly larger than that measured on US (P= 0.000), and CT is better modality in demonstration of pancreas segments especially the tail.

Biography

Arua Hyginus Nnaemeka is lecturer in Department of Medical Radiography and Radiological Sciences Faculty of Health Sciences & Technology, College of Medicine at University of Nigeria. He is a growing researcher who has many works published both in local and international journals. He has special interest in Imaging and endocrinology.

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