Comparison of Computed Tomography Dose Index (CTDI), Dose Length Product (DLP) and Effective Dose (ED) among male and female patients from Contrast Enhanced Computed Tomography (CECT) Pancreatitis Protocol.

Background

The diagnosis of pancreatitis is generally based on clinical and laboratory findings; however, Computed Tomography (CT) is an imaging technique of choice specially Contrast Enhanced Computed Tomography (CECT) shows morphological characteristic findings that allow for establishing the diagnosis of pancreatitis and determining the extent of disease severity which is done along with the administration of appropriate contrast medium. The purpose of this study was to compare Computed Tomography Dose Index (CTDI), Dose Length Product (DLP) and Effective Dose (ED) among male and female patients from Contrast Enhanced Computed Tomography (CECT) Pancreatitis Protocol.

Methods:

This retrospective study involved data collection based on clinical/laboratory/ultrasonography diagnosis of Pancreatitis and has undergone CECT Abdomen pancreatitis protocol. Data collection involved detailed information about a patient's Age and Gender, Clinical history, Individual Computed Tomography Dose Index and Dose Length Product and effective dose.

Results:

We have retrospectively collected dose data from 150 among which 127 were males and 23 were females. The values obtained from the display of the CT screen were measured, calculated and compared to determine whether the CTDI, DLP and ED values were similar or not. CTDI for females was more as compared to males. The differences in CTDI values for females and males were 32.2087 and 37.1609 respectively. DLP values and Effective dose for both the genders did not show significant differences.

Conclusion:

This study concluded that there were no more significant changes in the DLP and ED values among both the genders however we noticed that female patients had more CTDI than males.

Keywords: Computed Tomography, Contrast Enhanced Computed Tomography, Computed Tomography Dose Index, Dose Length Product, Effective Dose.