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Educational Abstract

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Recent Advancement Of Dose Reduction Techniques in CT scan

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Recent Advancement Of Dose Reduction Techniques In CT Scan

Computed tomography (CT) is an essential tool in diagnostic imaging for evaluation of many clinical conditions. The advancements in CT has made a dramatic increase in the number of investigations with a resultant increase in radiation dose related with CT examinations also. Such an increase in radiation dose has become a matter of serious concern. It's highly essential to optimize CT imaging protocols and adopt radiation dose reduction techniques to ensure the best imaging with low est dose.

The innovations in this field has developed many dose reduction techniques. The recent developments and commonly adopted techniques are discussed herewith. Introduction Of Tube Current Modulation, Peak Voltage Optimization, Noise-Reduction Reconstruction Algorithms, Extreme Multidetector CT, Iterative Reconstruction Algorithms, Dual-Energy CT, Cone-Beam CT, Adaptive Dose Collimation, And Improved Detection-System Efficiency. These techniques are adopted by various equipment manufactures Like Siemens, GE and Philips as it has become the marketing tool for manufacturing companies.

Conclusion

The radiology community should be aware of radiation dose reduction techniques in CT and apply it to get best image at a lower dose. Radiographers play a vital role in the medical imaging. Current advances in technology have made it essential for now adays radiographers to constantly learn and cope with new skills. Making awareness and developing best practice on radiation dose reduction is the need of hour and every effort has to be made in this regard.