

SEMINÁRIO

Title:

Patient Motion in Nuclear Medicine: Occurrence, Artifacts and Pitfalls, Detection and Correction



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Abstract:

Patient motion is a common source of artifact in nuclear medicine imaging studies. With continuing improvements in spatial resolution of emission tomography scanners, small patient movements during imaging become a significant source of resolution degradation. We review the history of development in tomographic imaging systems and introduce classification of motion types during imaging. We discuss about the motion parameters that can influence the likelihood and magnitude of artifact formation. Motion preventing devices are used to restriction of motion occurrence. But, these devices cannot completely eliminate motion and the risk of motion is still high. In addition, these devices cannot use for organs inside the body. So, using motion detection and correction methods are very necessary. We describe using peripheral devices out of imaging system and also using data-driven methods which depend on just the emission data for motion detection and correction. Finally, we discuss about preparation of the patient and requirements that motion detection methods should meet to reduce the likelihood of motion artifacts.

Dia 30 março 2017 (5ª feira) – 11:00 horas

Local: Sala de Seminários / IBEB