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Advantages of Total Body PET imaging

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The recent introduction of long axial field-of-view (LAFOV) positron emission tomography (PET) offers substantially larger axial coverage of the body and a substantially higher system sensitivity comparing with conventional short axial field-of-view systems. This provides new opportunities for applying PET in clinical practice. Some examples are reduction of scan duration for example in intensive care unit patients; reduction of the amount of tracer administered to the patient, which is very important when imaging younger patients or pregnant women; longitudinal or delayed imaging for using short- and long-lived tracers; and applications of total body dynamic or parametric imaging. In addition to this, new emerging techniques, such as artificial intelligence and imaging with multiple radiotracers could aid in a more general clinical application of LAFOV PET. The objective of this presentation is to highlight these opportunities especially for imaging infection and inflammation and to indicate future directions with LAFOV PET.

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