Dose reduction in paediatric brain PET imaging: how low can we go?

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Introduction

Evaluate the effective dose and image quality obtained with different image reconstruction methods when reducing the injected activity in pediatric imaging with [18F]-FDG PET/CT.

Materials and methods

VOIs
- Hypometabolic region
- Contralateral part (CLP)
- Hot spots (left and right)
- Uniform region

Figures of merit
- TBR (50 % threshold)
- Ratio HMR/CLP
- Noise in the uniform region

Results

PET injected activity could be reduced up to 50 % without compromising image quality, when applying the suitable image reconstruction technique.

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References