Results: CT revealed erosions and ankyloses of the sacroiliac joints, fusion of the posterior elements of vertebra especially in the thoracic spine, enthesophytes, not seen with CRs, in 26 patients ($p < 0.05$).

Level of diagnostic confidence was higher when interpreting CT compared to CRs, in cases of erosions and ankyloses, in 35 patients ($p > 0.05$). CT was slightly superior in the detection and characterization of syndesmophytes, enthesisopathy and calcifications.

Effective dose for (R)-[11C]PK11195 CT was $1.20 \pm 0.26$ mSv and for CR $1.07 \pm 0.21$ mSv. The difference was not statistically significant ($p = 0.588$).

Conclusion: (R)-[11C]PK11195 CT of spine and pelvis at an effective dose, lower than previously published, seems to perform better than radiographs in the detection of structural changes of PsSpA. Further studies are needed to document the capabilities of (R)-[11C]PK11195 CT for the imaging assessment of PsSpA in daily clinical practice.

References:


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SAT0551

WHOLE BODY MACROPHAGE PET IMAGING THAT INCLUDES THE FEET CAN PROVIDE ADDITIONAL INFORMATION TO CLINICAL ASSESSMENT IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS


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Background: Clinical assessment of arthritis is the cornerstone in the diagnosis and treatment of rheumatoid arthritis (RA). Nevertheless, reliable determination of (sub)clinical arthritis can be difficult, especially in the feet. Advanced imaging techniques may contribute to early diagnosis and therapy monitoring through sensitive detection and (quantitative) monitoring of synovitis. Previously, it has been demonstrated that macrophage imaging using (R)-[11C]PK11195 positron emission tomography (PET) allows for highly sensitive and specific imaging of RA disease activity in the hands. Whole body macrophage PET imaging that includes the feet has not yet been evaluated in RA.

Objectives: To compare whole body macrophage PET imaging to clinical assessment of arthritis activity in clinically active, early RA patients.

Methods: Thirty-five previously untreated RA patients (age 54 ± 12, 51% male) with at least two clinically inflamed joints were included. They underwent a whole body macrophage PET imaging that includes the feet has not yet been evaluated in RA. Forty-five percent of these patients also showed two or more non-affected joints.

Results: CT revealed erosions and ankyloses of the sacroiliac joints, fusion of the posterior elements of vertebra especially in the thoracic spine, enthesophytes, not seen with CRs, in 26 patients ($p < 0.05$).

Level of diagnostic confidence was higher when interpreting CT compared to CRs, in cases of erosions and ankyloses, in 35 patients ($p > 0.05$). CT was slightly superior in the detection and characterization of syndesmophytes, enthesisopathy and calcifications.

Effective dose for (R)-[11C]PK11195 CT was $1.20 \pm 0.26$ mSv and for CR $1.07 \pm 0.21$ mSv. The difference was not statistically significant ($p = 0.588$).

Conclusion: (R)-[11C]PK11195 CT of spine and pelvis at an effective dose, lower than previously published, seems to perform better than radiographs in the detection of structural changes of PsSpA. Further studies are needed to document the capabilities of (R)-[11C]PK11195 CT for the imaging assessment of PsSpA in daily clinical practice.

References:


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SAT0552

IMAGING OF CORTICAL INTERRUPTION IN THE METACARPOPHALANGEAL JOINTS WITH HIGH-RESOLUTION PERIPHERAL QUANTITATIVE COMPUTED TOMOGRAPHY SHOWS HIGH RELIABILITY AND ACCEPTABILITY FOR PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: High-Resolution peripheral Quantitative Computed Tomography (HR-pQCT) has been proposed as a modality for assessment of disease severity in inflammatory arthritis. The excellent resolution (82µm3) and the inherent contrast between bone and soft tissue makes it a gold standard reference for the detection of bone damage in vivo. However, the nine minutes acquisition...