Prostate cancer diagnosis: Is mpMRI-guided prostate biopsy the new standard?

**Monday, 14 March**
**10:30 - 12:00**

**Location:** Room Madrid (Hall B2, level 0)

**Chair:** P. Albers, Düsseldorf (DE)

**Aims and objectives of this presentation**
Multiparameter Magnetic Resonance Imaging (mpMRI) – guided biopsies have been introduced in the armamentarium of prostate cancer diagnosis in various scenarios. Still, the standard of care is the systematic biopsy of the prostate to diagnose or exclude cancer. In the primary biopsy indication data are available that anterior tumours and small tumour foci can be better detected by an mpMRI-guided approach. Randomised trials, however with some flaws, could not show a significant difference in the detection rate of tumours in this indication. MpMRI-guided biopsy technology leads to better quality and may be able to reduce the number of biopsies. In the secondary indication (patients with prior negative biopsies and rising PSA) tumour detection or exclusion is even more important and mpMRI-guided approaches may be able to reduce the number of biopsies to targeted ones only. Whether all this is already standard will be discussed in the session with a point–counterpoint discussion after an introduction regarding the technique. Finally the different techniques of mpMRI-guided biopsies will be presented.

**10:30 - 10:45**

**State-of-the-art lecture** Technique and interpretation of mpMRI with PI-RADS 2.0
G. Villeirs, Ghent (BE)

**Aims and objectives of this presentation**
mpMRI is a combination of morphologic T2-weighted imaging (T2WI) with functional imaging tools such as Diffusion-Weighted Imaging (DWI), dynamic contrast-enhanced MRI (DCE) and spectroscopic imaging. PIRADS 2.0 is an updated scoring system for predicting the clinical significance of any detected abnormality, using DWI as the dominant sequence in the peripheral zone, T2WI as the dominant sequence in the transition zone and DCE as a problem solver. The use of PIRADS 2.0 will be illustrated during the present lecture.

**10:45 - 11:15**

**Debate** mpMRI-guided biopsy

**10:45 - 11:00**

**Pro**
M. Emberton, London (GB)

**Aims and objectives of this presentation**
My aim is to convince urologists working in Europe that the time has come to abandon random biopsies and replace them with image guided biopsies. The result should be fewer men biopsied overall, fewer needle deployments, fewer clinically significant cancers missed, fewer unnecessary diagnoses, better risk stratification and less cost.

**11:00 - 11:15**

**Con**
C. Arsov, Düsseldorf (DE)

**11:15 - 11:30**

**State-of-the-art lecture** Different techniques of MRI biopsy
S. Kruck, Tübingen (DE)
Blinded comparison of MRI targeted TRUS guided prostate biopsy and TRUS guided biopsy in the 5th screening round of the European Randomized study of Screening for Prostate Cancer Rotterdam

By: Alberts A.1, Roobol M.1, Bokhorst L.1, Drost F.-J.2, Van Leenders G.3, Dwarkasing R.2, Barentsz J.4, Schröder F.1, Bangma C.1, Schoots I.2

Institutes: Erasmus MC, Dept. of Urology, Rotterdam, The Netherlands, Erasmus MC, Dept. of Radiology, Rotterdam, The Netherlands, Erasmus MC, Dept. of Pathology, Rotterdam, The Netherlands, Radboudumc, Dept. of Radiology, Nijmegen, The Netherlands

State-of-the-art lecture

Aims and objectives of this presentation
The aim of our study was to compare the outcomes of MRI-targeted prostate biopsy with TRUS-guided systematic in a population-based prostate cancer screening (European randomized study of screening for prostate cancer Rotterdam). Population-based screening with TRUS-guided biopsy reduces mortality but also causes overdiagnosis of low-grade tumours. This study shows that the performance of MRI-targeted biopsy instead TRUS-guided systematic biopsy significantly reduces overdiagnosis while maintaining a comparable sensitivity for high-grade prostate cancer.

A prospective randomized study comparing standard prostate biopsy and a new diagnostic path with MRI and fusion biopsy: Preliminary results

By: Porpiglia F.1, Mele F.1, Manfredi M.1, Aimar R.1, Checcucci E.1, Cossu M.1, Bollito E.2, Russo F.3, Gned D.4, De Pascale A.4, Cirillo S.5, Fiori C.1

Institutes: San Luigi Gonzaga Hospital, Dept. of Urology, University of Turin, Orbassano, Turin, Italy, San Luigi Gonzaga Hospital, Dept. of Pathology, University of Turin, Orbassano, Turin, Italy, Candiolo Cancer Institute, Division of Radiology, Candiolo, Turin, Italy, San Luigi Gonzaga Hospital, Division of Radiology, University of Turin, Orbassano, Turin, Italy, Mauriziano Hospital, Division of Radiology, Turin, Italy

State-of-the-art lecture

11:45 - 12:00 Discussion