

Use of prostate systematic and targeted biopsy on the basis of multiparametric MRI in biopsy-naïve patients (MRI-FIRST): Prospective, multicenter, paired diagnostic study

O. Rouvière et al. Nov 2018 Lancet Oncol

STUDY CONTEXT

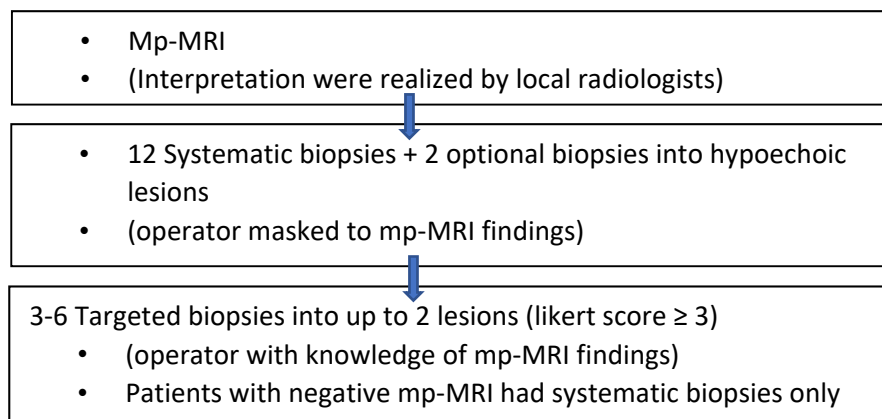
Context: This study was done on **251** biopsy naïve patients in **16** centers in France (7 systems are equipped with Trinity). All biopsies were realized with **transrectal** approach under **local anesthesia**.

Goals: Whether using MRI on biopsy naïve patient would improve detection of clinically significant prostate cancer.

Definitions of clinically significant cancer:

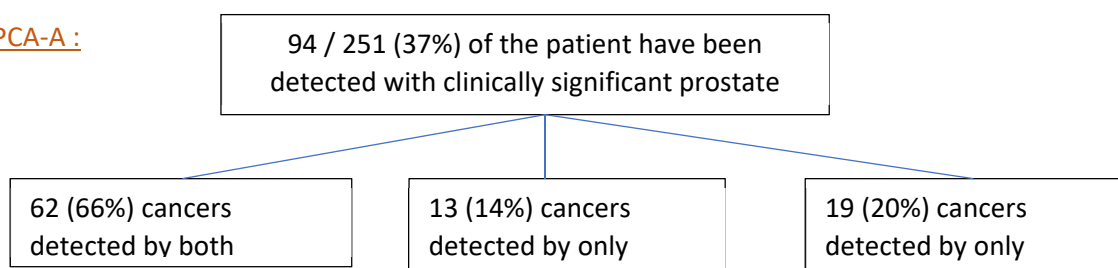
- CsPCA-A : ISUP Grade group 2 or higher
- CsPCA-B : ISUP Grade group 1 tumor with MCCL of 6mm OR CsPCA-A
- CsPCA-C : ISUP Grade group 3 or higher

Protocol:



KEY RESULTS

For CsPCA-A :



- Detection rate is not significantly different between systematic and targeted biopsies (29,9% Vs 32,2%).
- Detection improved when both systematic and targeted biopsy were combined.

For CsPCA-B : Results are not significantly different.

For CsPCA-C :

- Detection of significant cancer is significantly lower with systematic biopsies than targeted (15,1% Vs 19,9%).
- Targeted biopsies detected significantly fewer non-clinically significant prostate cancer tumor than did systematic biopsies (5,6% Vs 19,5%).

TO BE REMEMBERED

- Systematic biopsies can be avoided depending on the definition of clinically significant cancer.
- Detection of clinically significant cancer is improved with the combination of systematic and targeted biopsies.

HOW TO USE IT ?

- Encourage the realization of MRI before the first biopsy session.
- Encourage the combination between systematic and targeted biopsies.
- Show that Koelis participated in publications contributing to the new 2019 EAU guideline.