

MRI-Targeted or standard Biopsy for Prostate-Cancer Diagnosis

V.Kasivisvanathan et al. May 2018 NEJM

STUDY CONTEXT

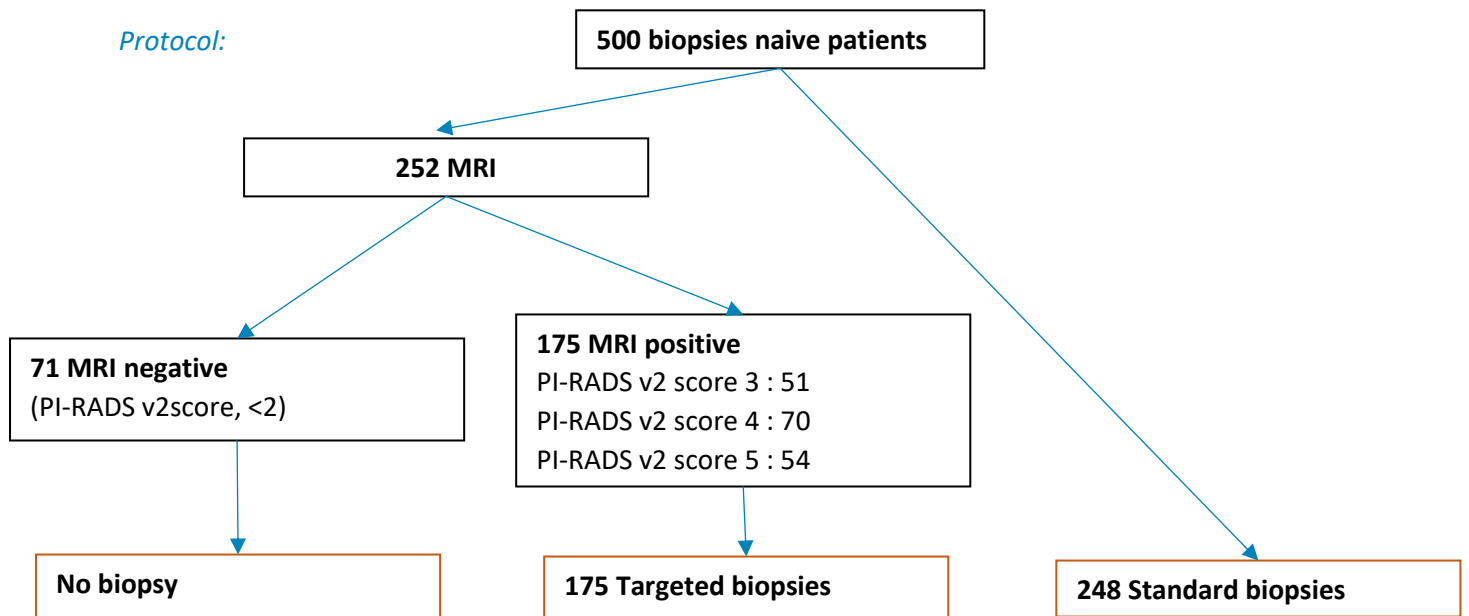
Centers: From 2016 to 2017, 23 centers from 11 countries (among them 6 Koelis centers).

Goals: Comparison of the clinically significant cancer detection rate with MRI-targeted biopsies only and standard biopsies.

Patients: 500 patients in total randomly distributed: 252 men for MRI-targeted biopsies and 248 for standard biopsies group.

Biopsy: Both approaches (transperineal and transrectal) were permitted. For the targeted biopsies, a maximum of 3 lesions with 4 cores obtained per area were allowed.

Protocol:



KEY RESULTS

- Clinically significant cancer was detected in 38% of the MRI-targeted group versus in 26 % of the standard biopsy group.
- More results of clinically insignificant cancer were found with standard biopsies (22%) than with MRI-Targeted biopsies only (9%).
- The mean maximum cancer core length is 7.8 mm for the MRI-targeted group and 6.5 mm in the standard-biopsy group.

HOW TO USE IT ?

A diagnostic pathway including risk assessment with MRI before biopsy and MRI-targeted biopsy was superior to diagnostic pathway of standard transrectal ultrasonography-guided biopsy.

This paper can be used to support:

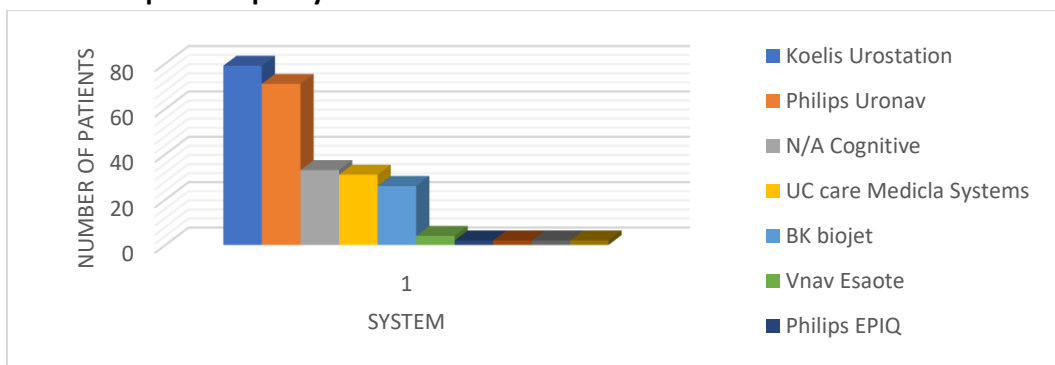
- The analysis of MRI before biopsies
- The new EAU guidelines about MRI
- The implication of Koelis in researches with the higher number of patients included (≈ 80)

ANNEX

Koelis equipped centers:

		Countries
Centre Hospitalier Lyon-Sud	Alain Ruffion	France
Hospices Civils de Lyon of the Hôpital Edouard Herriot	Sébastien Crouzet	France
Erasmus University Medical Center, Rotterdam	Monique J. Roobol	Netherlands
Martini Klinik, Hamburg	Lars Budäus	Germany
Oulu University Hospital, Oulu	Markku H. Vaarala	Finland
Jewish General Hospital, Montreal	Franck Bladou	Canada

Number of patients per system:



Second outcome:

- A greater percentage of cores were positive for cancer in the MRI-targeted biopsy group (44%) than in the standard-biopsy group (18%).
- After discussion of the test results with each participants, more men in the standard-biopsy group (16%) than in the MRI-targeted biopsy group (3%) underwent further diagnostic tests.
- Among the participants who underwent further biopsy, clinically significant cancer was detected in none of the 4 men in the MRI-targeted biopsy group but in 3 of 9 men in the standard biopsy group.