CORRESPONDENCE

Detecting Prostate Cancer—A Prospective Comparison of Systematic Prostate Biopsy With Targeted Biopsy Guided by Fused MRI and Transrectal Ultrasound

by Dr. med. Marko Brock, Dr. med. Christian von Bodman,
Dr. med. Jüri Palisaar, Dr. med. Wolfgang Becker, Dr. med. Philipp Martin-Seidel,
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Simple Solution

A group of patients who underwent transrectal ultrasound (TRUS)-guided prostate biopsy was compared with a group of patients who, after a previous negative biopsy, were biopsied again using a fusion of magnetic resonance imaging (MRI) and TRUS imaging data (1). The sensitivity of TRUS is only 50%.

There is no mentioning of the fact that bleeding as well as abscess and scar formation may occur in the prostate after biopsies which then can significantly impair the MRI-based detection of prostate cancer.

How easy would it be to have an MRI done prior to the biopsy to assist with biopsy planning. As a “by-product”, the tumor stage could be determined. In addition, lymph nodes and bones are also visualized in the examined area.

However, this is not the way medicine is practiced today.

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Conflict of interest statement Form

The author declares that no conflict of interest exists.

In Reply:

The original article, Detecting Prostate Cancer, presented data from a prospective analysis of 168 patients with suspicion for prostate cancer (1). It compared MRI/TRUS fusion-guided targeted biopsy with

systematic biopsy. In all patients, the methods were used simultaneously as long as a defined target lesion was identified in the previous MRI scan. Thus, the reader’s assumption that two patient groups were compared is incorrect.

Even though no peri-interventional complications were observed, bleeding or infection may have occurred after biopsy. According to Loeb et al., the morbidity of prostate biopsy is 4.2% (2). We have observed that morbidity also correlates with the number of biopsies sampled (2, 3). In our study, this complication rate is probably lower as we obtained less biopsy cores compared with conventional saturation biopsy and we had, in addition, a rectal swap and urine culture available before performing the biopsy.

After previous negative biopsy, a waiting period of at least eight weeks was observed before an MRI scan was performed. Neither scars nor abscesses were reported in any of the patients.

While improving the detection rate achieved with prostate biopsy, MRI alone, in our opinion, cannot determine the tumor stage in patients with prostate cancer. In our cohort, a significant portion of tumors were not detected with MRI, resulting in a false-negative rate of 9.6%. Microscopic evaluation of the abnormalities found is indispensable to establish infiltration of the capsule or detect minute lesions, often measuring only few millimeters in diameter.

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