

Enhancing the Detection of Prostate Cancer through the use of Multiparametric-MRI and Targeted Transrectal Prostate Biopsy Fusion

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Dear editor: Today, due to the aging of the population, prostate cancer is one of the most common human cancers and has one of the highest mortality rates. Therefore, early diagnosis is effective in reducing mortality. Advanced medical technologies such as MP-MRI and spectroscopy have significantly enhanced the identification of malignant prostate. By utilizing specialized software and focused ultrasound to pinpoint questionable areas of the prostate, the combination of Multiparametric-MRI (MP-MRI) and transrectal biopsy can require replacement, leading to better precision and less discomfort for patients. This approach also enhances the chances of detecting cancer in patients with suspected prostate problems. As a result, ultrasound has become the preferred option for biopsies in such cases.¹

The early detection of prostate cancer will significantly decrease mortality and morbidity resulting from multiple biopsies.

It is believed that an early detection of prostate cancer is crucial in reducing the mortality and morbidity caused by multiple biopsies. Detecting the disease at an early stage allows successful treatment and high cure rates if it is confined to the organ. However, diagnosing and treating prostate cancer at later stages can lead to poor outcomes, increased morbidity and mortality, and higher costs.²

The author concluded that MP-MRI has emerged as a promising instrument in identifying suspicious regions within the prostate that require special attention on subsequent biopsy. Fusion platforms have shown promising results in improving the detection rate of significant cancer by incorporating MP-MRI into the biopsy and providing real-time imaging with active targets. Broader applications of this technology, including MRI-guided focal therapy for prostate cancer, are in early-phase trials.³

Conflict of Interest Disclosures

The author declares no conflict of interest.

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