

MRI May Help 27% Of Suspected Prostate Cancer Patients Avoid Biopsies

By ACSH Staff — January 19, 2017



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A new study estimates that adding an MRI test - a short-term cost in increasingly stretched government health care budgets - would yield savings because 27 percent of men could avoid an unnecessary biopsy and also reduce over-diagnosis by 5 percent. An over-diagnosis is when a patient is diagnosed with a cancer that does not go on to cause any harm during their lifetime.

Currently, over a million prostate biopsies are performed in both the US and Europe each year. They are scheduled when men experience symptoms of prostate cancer or have a prostate specific antigen (PSA) test showing high levels of the PSA protein in their blood. Yet prostate cancer can be aggressive or harmless and tissue samples taken at random cannot confirm whether a cancer is aggressive and may even miss aggressive cancers that are actually there. If harmless cancers are treated even though there is no survival benefit, the public incurs higher health care costs and the patient endures side effects.]\

[In the study](#) [2], 576 men with suspected prostate cancer were given a Multi-parametric MRI (MP-MRI) scan followed by two types of biopsy in 11 NHS hospitals. To control for and compare the accuracy of the MP-MRI and standard biopsy, they underwent a template prostate mapping (TPM) biopsy first. The second biopsy was the most commonly used, a transrectal ultrasound-guided (TRUS) biopsy. The TPM biopsy found that 40 percent had aggressive cancer and, of those, the MP-MRI scan correctly diagnosed 93 percent while the TRUS biopsy correctly diagnosed only 48 percent. Further, for men who had a negative MP-MRI scan, 89 percent had either no cancer or a harmless cancer.

Telling was that during the study there were 44 serious adverse events, with eight cases of sepsis

caused by a urinary tract infection and 58 cases of urinary retention, as a result of the biopsies. Those are symptoms commonly seen in the clinic as a result of the standard biopsy and an MRI might avoid some of those.

Based on their results, the researchers believe that MP-MRI could be used before TRUS biopsy to identify those who have harmless cancers and do not need a biopsy immediately. That group could instead continue to be monitored by their doctors, while those thought to have aggressive cancers could then have their MP-MRI scan result confirmed by the TRUS biopsy. They believe this would reduce over-diagnosis while improving detection of aggressive cancers.

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[2] [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)32401-1/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)32401-1/fulltext)