

Method to detect bladder cancer earlier is under development

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Scientists may have discovered a way to diagnose bladder cancer at its earliest and, therefore, most treatable stages by measuring the presence or absence of microRNA using already available laboratory tests.

"Measuring expressions of [microRNA](#) in bodily fluid represents a very promising tool with widespread implications for screening," said Liana Adam, M.D., Ph.D., assistant professor in urology at The University of Texas MD Anderson Cancer Center.

Adam presented her findings at the Fourth AACR International Conference on Molecular Diagnostics in Cancer Therapeutic Development.

[Bladder cancer](#) is the fourth most common solid malignancy in men and the fifth most common overall, with an estimated 70,000 new cases and more than 14,000 deaths expected this year alone in the United States. Unfortunately, the majority of patients are asymptomatic.

Scientists are working with microRNAs, the non-coding part of DNA, because they are often tissue specific, stable and their presence or absence can be linked to known clinical parameters.

In this case, Adam and colleagues identified 79 separate microRNAs that had been previously shown to be dysregulated in the blood of individuals with bladder cancer. They took blood samples from 20 individuals with preoperative bladder cancer and 18 in a control group.

Using a collection of standard statistical models, they determined that measurement of these microRNAs was as accurate as the current gold standard of testing.

"This needs further validation, but we could reasonably use this method for widespread screening of bladder cancer," said Adam.

Provided by American Association for Cancer Research

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