全ての男性が頻回のPSAスクリーニングを必要とするわけではない（Abstract No. 4512）

新たなスクリーニング法の結果、PSAレベルにより転移性前立腺がんまたは前立腺がん死のリスクを予測できる可能性が示唆された

Novel-screening approach suggests PSA levels may predict risk of metastatic prostate cancer or prostate cancer-related death

過去にスクリーニングを受けていないスウェーデン男性における大規模レトロスペクティブケースコントロールスタディの結果、44～50歳の男性における初回スクリーニング時の前立腺特異抗原（PSA）により、最大30年後の前立腺がん死または転移性前立腺がん発症のリスクが予測できることが示されたとの研究結果が第47回ASCOで発表された。このスタディでは、44～50歳の時点で計測したPSAレベルが上位 10%（>1.6ng/ml）であった男性の44%が前立腺がんにより死亡した。結果として、この少人数の男性集団においては、前立腺がん死の半分近くが集中的な調査により予防できる可能性があったと筆者らは述べている。さらに、同年齢層に比してPSA値の低い男性は数十年後の転移性前立腺がん発症または前立腺がん死リスクが比較的低く（28～0.5%）、生涯において3回の検査しか必要でない可能性がある。この結果は、頻回にスクリーニングを行う必要のある人を決定するのに重要な意味をもつ可能性がある。

Full Text

A large retrospective, case control study of previously unscreened Swedish men showed that prostate specific antigen (PSA) levels at the time of initial screening among men aged 44 to 50 can accurately predict the risk that a man will die of prostate cancer or develop metastatic prostate cancer up to 30 years later. The authors suggest that the initial PSA test result for men in this age group could enable approximately 50 percent of men to undergo just three PSA tests in their lifetime.

The study found that 44 percent of prostate cancer deaths occurred in men who had the top 10 percent of PSA levels (greater than 1.6 ng/ml) when they were tested between the ages of 44 and 50. As a result, the authors say, nearly half of all prostate cancer deaths could potentially be prevented by intense surveillance of this small group of men. In addition, they found that men with low PSA values for their age group are at comparatively lower risk (28 percent to 0.5 percent) of developing metastatic prostate cancer or dying of prostate cancer decades later and may only need to be tested three times in their lifetime. The findings could have important implications in deciding who should be screened with frequency.

"Doctors have urgently needed an effective PSA testing strategy that accurately distinguishes men at high risk for prostate cancer who need aggressive monitoring from those at low-risk of the disease, who can be safely spared from frequent testing. If confirmed in prospective trials, this approach could have a significant impact on future prostate cancer screening programs," said lead author Hans Lilja, M.D., Ph.D., attending research clinical chemist at Memorial Sloan-Kettering Cancer Center in New York. "Our results appear to identify a subgroup of relatively young men at very high risk of aggressive prostate cancer who would likely benefit from close monitoring as they age."

In the study, researchers analyzed PSA in archived blood samples from 12,090 men provided between 1974 and 1986, and 4,999 repeat samples six years later as part of the Swedish Malmo Preventive Project67 men provided blood samples at age 60.

Using these samples, the investigators assessed the median PSA levels for ages 44 to 50, 51 to 55 and 60.

These median levels at baseline served as the base to distinguish men at high or low risk of dying of prostate cancer or developing metastatic prostate cancer. As men aged, if their PSA level remained below the median for the population in their age group, the risk of death from metastatic prostate cancer progressively declined. They found that 28 percent of metastases or deaths from prostate cancer over the next 27 years occurred in men ages 44 to 50 who had a PSA below the median in the population (0.7 ng/ml). For men ages 51 to 55 with a PSA less than the median, 0.8, the risk of metastatic prostate cancer or death was lower - only 18 percent. At age 60, only 0.5 percent of deaths or metastases occurred in men with a PSA less than median for that age, 1.1 ng/ml.

While these figures - 28 percent and 18 percent - may seem high, Dr. Lilja said, the short-term risk (15 years) of metastatic prostate cancer or dying from prostate cancer is very low. Based on progressively declining risks, the researchers conclude that men with PSAs below population median in each age group remain at increasingly lower risk for dying of prostate cancer as they age. As a result, testing three times between ages 44 and 60 could be recommended for 50 percent of men. The other half of men with PSAs above the median would be followed more closely.

"Such a scenario could avoid more intense, costly PSA testing that could result in over-diagnosis and unnecessary treatment that potentially has little benefit, since they would be at extremely low risk," Dr. Lilja said.

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