

Circumcision linked to reduced risk of prostate cancer in some men

May 29 2014

Circumcision is performed for various reasons, including those that are based on religion, aesthetics, or health. New research indicates that the procedure may help prevent prostate cancer in some men. The findings, which are published in *BJU International*, add to a growing list of advantages to circumcision.

Besides advanced age, African ancestry, and <u>family history</u> of prostate cancer, no other risk factors for prostate cancer have been definitively established. This has fuelled the search for modifiable risk factors. Marie-Élise Parent, PhD and Andrea Spence, PhD, of the University of Quebec's INRS-Institut Armand-Frappier, led a team that designed an observational study to investigate the possible association between <u>circumcision</u> and <u>prostate cancer risk</u>. Their study, called PROtEuS (Prostate Cancer and Environment Study), included 1590 prostate cancer patients diagnosed in a Montréal hospital between 2005 and 2009, as well as 1618 healthy control individuals. In-person interviews were conducted to gather information on sociodemographic, lifestyle, and environmental factors.

Circumcised men had a slightly lower risk, albeit not statistically significant, of developing prostate cancer than uncircumcised men. Circumcision was found to be protective in men circumcised when they were older than 35 years, with the procedure decreasing their risk by 45%. A weaker protective effect was seen among men circumcised within 1 year of birth, with the procedure decreasing their risk by 14%. The strongest protective effect of circumcision was recorded in Black



men, who had a 60% reduced risk if they were circumcised, but no association was found with other ancestral groups. "This is a particularly interesting finding, as Black men have the highest rates of prostate cancer in the world and this has never been explained," said Dr. Parent. "This novel finding warrants further examination in future studies that have a larger number of Black participants."

Dr. Parent noted that circumcision may reduce the risk of contracting and maintaining a sexually transmitted infection, which has been postulated to be a risk factor for prostate cancer. This may explain the reduced risk of <u>prostate cancer</u> observed in males circumcised at a younger age prior to any potential exposure to infection. "We do not know why a protective effect was observed for men circumcised after the age of 35. These men may have had a pathologic condition of the foreskin that lead to them being circumcised," she said.

Another study related to circumcision published in *BJU International* addresses the issue of HIV infection and circumcision. Previous studies have found that circumcision reduces a man's risk of becoming infected with HIV by 50% to 60%, and the procedure has the potential to reduce the HIV epidemic in areas of Eastern and Southern Africa where circumcision is uncommon and the epidemic most severe. As circumcision is promoted in these regions, HIV-positive men will likely seek the procedure either because they do not know their HIV status or to avoid being stigmatized. If post-surgical complications arise and intercourse is resumed before wound healing is complete, there may be an increased risk of HIV transmission to female partners. In this latest study, investigators in Uganda and the United States found that HIV infection does not significantly impair healing of circumcision wounds; therefore, HIV-positive men should not be denied the service if they request it.

More information: "Circumcision and prostate cancer: a population-



based case-control study in Montréal, Canada." Andrea R. Spence, Marie-Claude Rousseau, Pierre I. Karakiewicz, and Marie-Élise Parent. *BJU International*; Published Online: May 29, 2014 (DOI: 10.1111/bju.12741).

Male circumcision wound healing in human immunodeficiency virus (HIV)- negative and HIV-positive men in Rakai, Uganda." Godfrey Kigozi, Richard Musoke, Nehemiah Kighoma, Stephen Watya, David Serwadda, Fred Nalugoda, Noah Kiwanuka, James Nkale, Fred Wabwire-Mangen, Frederick Makumbi, Nelson K. Sewankambo, Ronald H. Gray, and Maria J. Wawer. *BJU International*; (DOI: 10.1111/bju.12406).

Provided by Wiley

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