RESEARCH HIGHLIGHTS

SUBFERTILITY AND TESTICULAR CANCER

A new systematic review of studies published since the late 1980s concludes that there is a link between male subfertility and testicular cancer. This has implications for the early detection and prevention of this malignancy, as well as for the management of men with fertility problems. "Patients and physicians should be aware that one of the causes of testicular cancer could be infertility," notes lead author Xiaoning Peng (Hunan Normal University, Changsha, China).

Testicular cancer is rare, but accounts for around 60% of all cancers in males aged between 15 and 35 years. The incidence of this type of malignancy has increased over the past few decades, in parallel with a general decline in sperm quality. "The exact etiology of the association between subfertility and testicular cancer risk warrants detailed assessment," stresses Peng. Putative common factors include *in utero* hormone exposure and genetic defects.

Peng's team assessed all relevant studies published worldwide between 1966 and 2005 that met their strict inclusion criteria. Analysis of seven case-control studies that included 4,954 participants showed that subfertile men had a significantly increased risk of developing testicular cancer (overall summary relative risk 1.68). This correlation persisted when cryptorchidism, an important confounding factor, was excluded. Subgroup analysis found that the risk was higher in the US than in Europe, and in population-based compared with hospital-based cohorts.

Peng admits that one limitation of the review was the small number of studies available. "More and larger case—control studies or prospective studies with multiregional and multi-institutional cohorts of men presenting for subfertility or infertility care are needed to confirm this conclusion," he stated in the paper.

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Original article Peng, X. et al. The association risk of male subfertility and testicular cancer: a systematic review. *PLoS One* **4**, e5591 (2009).