

MALE FACTOR INFERTILITY

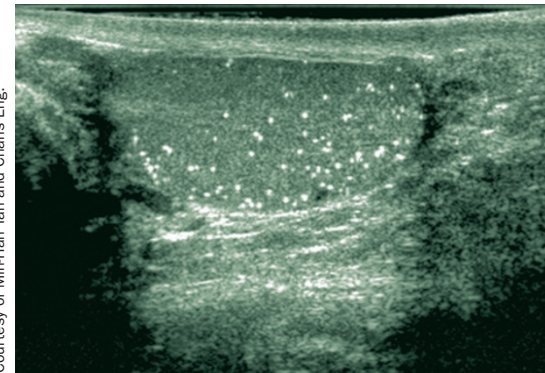
Asymptomatic testicular microlithiasis does not increase antisperm antibody production in infertile men

Two researchers from Guangzhou, China, have shown that testicular microlithiasis (localised or diffuse calcium deposition in the testis) is not a risk factor for antisperm antibody (ASA) production in infertile men. Jiang and Zhu examined 22 infertile men incidentally diagnosed with testicular microlithiasis and established that none of them displayed increased levels of ASA.

Testicular microlithiasis—which is present in 2–3% and 6–14% of asymptomatic and symptomatic men, respectively—has been linked to infertility in various studies, leading to hypotheses regarding a causal association. The presence of a ‘cap’ of Sertoli cells around the calcified core suggests that the blood–testis barrier (BTB) is disrupted during the passage of microcalcifications. BSB disruptions are a known risk factor for the production of ASAs, which interfere directly with fertilization. Thus, a popular theory is that testicular microlithiasis reduces fertility via ASA production.

However, Jiang and Zhu have established that any association between testicular microlithiasis and infertility is probably unconnected to ASA production. “It seems that men with simple testicular microlithiasis do not develop significant ASA levels,” says Wei-Jie Zhu. “That said, we cannot exclude the possibility that ASA production is raised by complicating testicular diseases, such as ureaplasma urealyticum infection, which could act negatively on the BTB.” As such conditions can dramatically decrease sperm antigen expression, Zhu speculates that elevated ASA levels could be temporary, rapidly returning to below-detection levels. “The establishment of an ‘ASA subpositive’ level might be conducive to earlier diagnoses of immunological infertility,” he suggests.

Importantly, the investigators also observed that men with testicular microlithiasis exhibited abnormal sperm morphology and reduced sperm motility, but normal sperm concentration. One



Courtesy of Min-Han Tian and Charis Eng.

possible explanation is that calcium deposits compress the seminiferous epithelium, reducing blood supply to the testis and disrupting spermatogenesis.

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Original article Jiang, H. & Zhu, W.-J. Testicular microlithiasis is not a risk factor for the production of antisperm antibody in infertile males. *Andrologia* doi:10.1111/and.12002