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JOURNAL ARTICLE

Sonographic testicular microlithiasis as an indicator of premalignant conditions in normal and infertile men

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Sonographic detection of multiple, small hyperechogenic lesions in the testis (testicular microlithiasis; TM) can indicate germ cell tumors. However, it has not been well established whether this finding signifies a risk factor for development of testicular neoplasm in all cases or whether it indicates premalignant changes only in those men with additional risk factors for germ cell cancer, such as infertility, a history of testicular maldescent, or the presence of an atrophic testis. In a retrospective analysis of 1701 consecutively performed scrotal sonographies of patients with (n = 1399) and without (n = 219) infertility or with contralateral testicular tumors (n = 83), the prevalence of TM was compared with that in 198 healthy men who volunteered for different clinical trials. TM was equally frequent in all groups (2.3% [32/1399] of infertile patients, 2.3% [5/219] of other patients without infertility, and 1.5% [3/198] of healthy men). Results of testicular biopsies were available for a subgroup of infertile men. Carcinoma in situ (CIS) was present only in cases with TM (2/11). In addition, sonographic follow-up examinations were performed in another 14 men with TM. Testicular tumors had developed in 2 patients, one whom was infertile and one in the control group. None of these patients had a history of testicular maldescent but all testes affected either by CIS or tumors were reduced in volume. We conclude that diagnosis of TM, especially if it is present in an atrophic testis, demands a diagnostic biopsy or at least sonographic follow-up examinations.

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