


Editorial Comment

Editorial Comment from Dr Sadahira and Dr Tsuboi to Testicular sarcoidosis with bilateral scrotal swelling

Genitourinary sarcoidosis is extremely rare, and only a few cases of bilateral testicular sarcoidosis have been reported in Japan. The differential diagnosis of scrotal masses includes testicular cancer. Serum parameters can be helpful in distinguishing a scrotal mass from testicular cancer, but a testicular biopsy is currently required to completely rule out malignancy. Kimura *et al.*¹ reported a rare case of bilateral testicular sarcoidosis, which can also be diagnosed based on biopsy findings. Although a radical orchiectomy was selected as treatment for testicular sarcoidosis in previous case reports because of the possible association between sarcoidosis and testicular malignancy, orchiectomy should be considered for patients in whom no alternatives are available or in whom a malignancy is suspected, especially in young men.² Recently, Konishi *et al.*³ concluded that the lectin array assay is a less invasive tool for distinguishing sarcoidosis from a malignancy, thus the lectin array assay has a potential to find biomarkers for sarcoidosis. Further research is warranted to verify this finding.

The periductal distribution of granulomas might cause ductal compression or Leydig cell damage.⁴ In some cases, young patients with testicular sarcoidosis have oligospermia or azoospermia. Systematic corticosteroid therapy may

improve the sperm count following regression of a space-occupying granuloma; however, the dose and length of this therapy are controversial. Further studies are necessary to confirm these findings.

Takuya Sadahira M.D., Ph.D.  and Ichiro Tsuboi M.D.
Department of Urology, Dentistry and Pharmaceutical Sciences, Okayama University Graduate School of Medicine,
Okayama, Japan
t.sadahira@gmail.com

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Conflict of interest

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Editorial Comment from Dr Bilim to Testicular sarcoidosis with bilateral scrotal swelling

Sarcoidosis is a rare disease of unknown pathogenesis. Urogenital sarcoidosis is very rare. PubMed search for “testicular sarcoidosis” returned only 26 articles. It usually affects the epididymis, followed by testis and vas deferens. It typically occurs in young adults. Symptoms are usually asymptomatic unilateral or bilateral scrotal swelling, testicular pain. Testicular sarcoidosis could be diagnosed in patients whose chief complaint is infertility. In the

article by Kimura *et al.*,¹ the patient presented with bilateral scrotal swelling.

The differential diagnosis of urogenital sarcoidosis includes testicular tuberculosis, malignant lymphoma and testicular tumor.²


Diagnosis routine usually involves ultrasound examination of scrotum. Gallium-67 scintigraphy also can be done. Sonographic examination of the scrotum usually reveals multifocal well-defined, round, hypoechoic intratesticular lesions.^{3,4} A testicular biopsy should be taken to confirm the diagnosis of sarcoidosis and exclude malignancy. If a patient has no previous history of sarcoidosis, chest X-ray or computed tomography scan, to confirm lung sarcoidosis, and serum markers panel (angiotensin-converting enzyme, KL-6 and sIL-2R) are

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performed. In the presented case, the patient has been diagnosed with lung sarcoidosis 2 years prior to presentation to the urologists.

The association between infertility and sarcoidosis is unknown. There are several reports on azoospermia and oligozoospermia in patients with sarcoidosis. Several causative explanations are possible. First is replacement of testicular tissue with granulomas. Another is sarcoidosis of epididymis resulting in obstructive azoospermia. Local effect of granuloma on spermatogenesis or systemic manifestation of sarcoidosis as secondary hypogonadism might also happen. Steroid treatment alleviating symptoms of sarcoidosis usually result in improvements in sperm count.⁵ The patients received prednisolone in a dose 40 mg/day, which was tapered to maintenance dose of 2.5 mg/day. Lung lesions demonstrated radiologic improvement. However, sperm count showed only mild improvement (7 million/mL). Increase in the prednisolone dose might result in further improvement of sperm count. Otherwise, the patient can opt for assisted reproductive technology.

Chronic sarcoidosis tends to relapse. Thus, exacerbation of symptoms in patients with testicular sarcoidosis could happen after remission period.

Vladimir Bilim M.D., Ph.D. 
Kameda Daiichi Hospital, Niigata, Japan
vbilim@zoho.com

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