



INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

A COMPREHENSIVE ANALYSIS OF TESTICULAR DYSFUNCTION IN INDONESIAN MEN AFFECTED BY LEPROSY

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Introduction: Leprosy is a chronic systemic granulomatous disease that results in various organ impairments, including testis. Testicular atrophy is often silent, unreported, and underestimated in leprosy patients.

Objective: To assess the clinical manifestation, hormonal profile, testicular volume, and sperm analysis in males affected by leprosy.

Materials and methods: A descriptive observational study with cross-sectional design and a consecutive sampling method was conducted from May 2018 to July 2018. This study included 32 men (age $29,87 \pm 7,25$ years; mean \pm SD) affected by leprosy from Bacterial and Parasitic Infection Clinics in Dr. Hasan Sadikin General Hospital, Bandung, Indonesia, who were either receiving multi-drug therapy (MDT) for leprosy (n=26) or were released from treatment (RFT; n=6). All participants were subjected to careful history taking, dermatological and genital examination, assessment of luteinizing hormone (LH), follicular stimulating hormone (FSH), testosterone levels, and testicular volume by ultrasonography. Sperm analysis were performed in 10 agreed patients.

Results: Among 32 patients, 16 patients had hormone imbalance. Clinical manifestations of testicular dysfunction was seen only in 31,28% patients. The symptoms of testicular dysfunction include loss of libido in 21,87%, pubic hair alteration in 9,38%, gynaecomastia in 6,25%, and secondary infertility in 6,25% patients. Low testosterone level was found in 40,63% patients. Serum levels of LH and FSH revealed high values in 28,13% and 21,88%, respectively. Reduced testicular volume was observed in 93,75% patients. The sperm analysis result of 10 patients was 100% abnormal, four patients had teratozoospermia, each of two patients had oligoteratozoospermia and oligoasthenoteratozoospermia, and each of one patient had oligospermia and azoospermia.

Conclusions: This study showed a high frequency of testicular dysfunction among male leprosy patients. The assessment of testicular function should be recommended as a routine work-up for each leprosy patient.

