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Case Report

Ovarian Filariasis: Diagnosis by detection of microfilariae in follicular fluid, a case report

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Abstract

Filariasis is a common parasitic infection in India. It is rare to find neglected cases of Filariasis nowadays. We reported the presence of microfilaria species in the follicular fluid of an egg donor undergoing an ovum pick up procedure. She was a 23-year-old egg donor who underwent stimulation using the GnRH antagonist protocol. Antagonist protocol is one of the standard protocols used for controlled ovarian hyperstimulation as a part of the IVF/ICSI (in-vitro fertilization / intracytoplasmic sperm injection) procedure

where GnRH antagonist (cetorelix) is used to suppress the endogenous LH surge. Her baseline investigations were normal, with no significant history suggestive of any worm infestations. During the ovum pickup procedure, follicular fluid revealed the presence of worm-like structures suggestive of larvae of some parasites. The follicular fluid was sent to the microbiology department along with the blood sample to confirm the parasite species. The parasite was found to be the larvae of *W. Bancrofti*. The oocytes were of poor quality and were discarded. The patient was treated with Diethylcarbamazine citrate. There are so many reports about scrotal Filariasis, but rare literature quotes ovarian Filariasis.

Introduction

Lymphatic Filariasis (LF) is a parasitic disease caused by *Wuchereria* and *Brugia*. In India, filariasis is considered endemic in 17 States and 6 Union Territories and estimated 553 million people at risk of infection. [1] *W. Bancrofti* contributes to the 98% caseload, and the remaining 2% is contributed by *B. malayi*. There is literature that refers way back to 6th century BC describes similar disease characteristics (Sushruta Samhita). [1] In addition to the usual locations, it can be found at other organs as well. A few case reports have been described in the literature suggesting some unusual locations like ovarian tissue. [[2], [3], [4], [5], [6]].

Filariasis is a mosquito-borne parasitic disease, most commonly caused by *W. Bancrofti*. This infection is prevalent in the tropical areas of Asia and Africa. This disease may be asymptomatic and diagnosed as an incidental finding in many patients, while others can present with lymphedema, mostly affecting the legs, but can also affect other parts of the body like the breast, arms, and genital areas. There are so many reports about scrotal Filariasis, but rare literature quotes ovarian Filariasis. Adult worms are minute thread-like cuticles and round ends. Male worm measures around 28 to 40mm long and 100µm wide, while female worms measure 80–90mm and 240–300µm wide. Microfilaria in the blood is usually ensheathed. [7].

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Case report

This 23-year-old lady with one living child of 2 years from a rural area and low socio-economic background was recruited as an oocyte donor. She was of average built, and her baseline blood investigations were within the normal limit. She had no history of any significant medical or surgical illness. She underwent controlled ovarian stimulation with an antagonist protocol as a routine procedure in assisted reproductive technique for oocyte retrieval. Antagonist protocol uses GnRH antagonist

Discussion

Though Filariasis is endemic in India and sub Saharan Africa but has global implication due to wide travel, filariasis is a parasitic disease that affects the lymphatic system. In India, there are up to 27.09 million cases of microfilariae infection, 20.83 million cases have some symptomatic presentation, and an estimated 429.32 million individuals are potentially at risk of infection in the country [14] [15]. In addition to the lymphatic system, it can be found in other organs. Ovarian

Discolure

There is no conflict of interest to disclose and this study is not sponsered by any agency or individual.

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