

Case Report

Oncocercoma Presenting as a Right Breast Mass in a 36-Year-Old Nigerian Woman: A Novel Report

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Abstract

We report the case of Oncocercoma situated in the anterior sternum of a 36-year-old Nigerian Female as a novel report from Nigeria. She was seen a month ago in our outpatient department. Differential diagnosis included Lipoma and Oncocercoma. Histology was specific and confirmed an Onchocerca Mass. Surgery was done with complete excision followed by ivermectin therapy. She recovered well.

Introduction

Onchocerciasis is a neglected tropical disease endemic in sub-Saharan Africa, Latin America, and the Middle East, is caused by penetration of the skin by third-stage filarial larvae when an infected black fly (*Simulium* species) takes a blood meal [1]. The larvae mature to adulthood in the subcutis and reside in nodules for up to 15 years. Female worms produce microfilariae that spread through lymphatics causing systemic manifestations, of which the most serious is blindness ("river blindness"). Repeated assault by infected black flies is believed to facilitate infection in humans living near fast-flowing rivers. Onchocercoma rarely present in the breast [2,3]. Interestingly, this is the first report coming from Nigeria.

Case Presentation

We present a 36-year-old immigration officer who hails from Makurdi Benue state and lives in Enugu. She presented to our facility with a two months history of right sided breast lump. The lump was of insidious onset and progressively increased to the size of a palm kernel. There was no preceding history of trauma, cough, drenching neither night sweats nor fever. There was no history of breast pain, nipple discharge or sores on the breast. She is nulliparous. Menarche was at 12 years, No family history of breast cancer. She is not a known hypertensive or diabetic. She is not on combined oral contraceptive drugs. Figure 1 above shows the site of the breast lump pre- excision. Physical examination showed a young lady who was in no distress. Her vital signs were essentially normal. Examination of the right

breast revealed a 3 by 2 cm well circumscribed mass in the lower inner quadrant of the right breast. It is firm in consistency, free from the skin and the underlying muscle. The axillary lymph nodes were not palpable. The left breast was examined and found to be normal. The other systems were essentially normal Initial diagnosis was right breast lipoma. Her laboratory investigations electrolytes Urea and Creatinine were all normal, FBC and urinalysis were normal. She had excisional biopsy of the mass under local anesthesia. Excised breast tissue was sent to the pathologist for histology. Gross specimen showed a yellowish grey lesion which was unencapsulated measuring 2 cm × 1.4 cm × 1 cm hard to firm in consistency smooth surfaced. Cut surface showed a yellowish nodular cut surface. Histology was specific for Onchocerca Adult worms and showed numerous calcified Onchocerca Ova surrounded by fibrous tissue and lymphoid infiltrates. Post-operative period was uneventful. She had good wound apposition healing and was managed on ivermectin (Figures 2 and 3).

Discussion

Onchocerca Volvulus infestation is a filarial nematode that is the leading cause of preventable blindness in sub-Saharan Africa [4]. It is transmitted by black flies and affects 18 million people in Africa, South America and Yemen [4]. An aggressive campaign of ivermectin treatment has dramatically reduced the incidence of



Figure 1: Right breast mass showing the lump pre-excision.

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Figure 2: Specimen consists of a nodular yellowish grey lesion measuring 2 cm × 1.4 cm × 1 cm. Hard to firm in consistency. Cut surface shows a yellowish nodular cut surface.

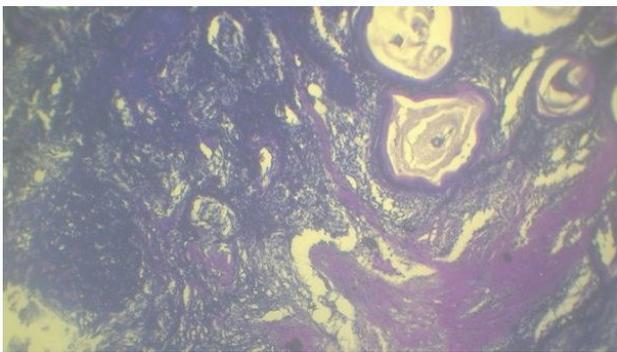


Figure 3: Sections show numerous Onchocerca Adult worms some of which are calcified and surrounded by fibrous tissues with Lymphoid infiltrates.

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Onchocerca infection in West Africa. We report a rare and novel case of Onchocerca breast mass in a 36-year-old lady. To the best of our knowledge this is the first report of *O. Vulvulus* presenting as a breast mass in Nigeria. Benue state is replete with fast flowing rivers and rivulets as well as dams, and is therefore, a breeding ground for black fly Simulium. Only 4 previous reports were seen especially from Cameroun [1,3]. Ours appears to be the fifth case of Onchocerca breast mass worldwide. This report underscores the need for vigilance as and a high index of suspicion when examining lumps of any kind especially in the skin in Africans. She was treated with ivermectin and is doing well. Her eye examination revealed no microfilaria present with normal vision.