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RESEARCH ARTICLE

LEG TUBERCULOSIS PRESENTING AS HYPOPION UVEITIS

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Abstract

We report a case of hypopyon uveitis as an immune ocular reaction to pulmonary tuberculosis. This uncommon condition should be considered especially in endemic areas. Quantiferon-tuberculosis Gold may be helpful to salvage such eyes by starting an appropriate treatment.

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Introduction:-

Intraocular tuberculosis is known to have diverse manifestations. The anterior segment presentation usually comprises granulomatous uveitis. Hypopyon is an uncommon manifestation of tuberculous uveitis [1]. We report here a rare case of hypopyon uveitis as an immune ocular reaction to pulmonary tuberculosis.

Case Report

A 40-year-old man presented to the emergency room complaining of blurred vision and redness in the left eye for three days. He gave history of low grade fever, night sweats, weight loss (12 Kg in one year), anorexia, intermittent cough and erythema nodosum.

The patient's Visual acuity was 10/10 in the right eye and 1/10 in the left eye. A slit-lamp examination of the left eye showed non granulomatous iridocyclitis with cells (3+ grade), moderate flare (2+ grade) in the anterior chamber and posterior synechiae, while there was an hypopyon of 2 mm high in the anterior segment. The intraocular pressure was normal and fundus details were not clear. Biomicroscopic examination of the right eye revealed pigmented deposits on the anterior crystalloid showing sequelae of an inactive anterior uveitis.

The patient received dexamethason, neomycin, polymyxin B eye drops one drop/hour for 48 hours and then eight times per day. Atropine and tropicamide, one drop three times per day, were prescribed to release the synechias. An improvement was noted two days later, as there were approximately 10 cells in the anterior chamber (1+ grade), although the hypopyon disappeared and the synechias released. The patient's fundus showed no abnormalities. The topical treatment continued for two weeks when the previous signs of uveitis had resolved.

At the same time, a detailed workup was done to investigate the cause of this uveitis. Laboratory investigations showed elevated erythrocyte sedimentation rate (120 mm at first hour), microcytic hypochromic anemia (hemoglobin at 11g/l), thrombocytosis (520 000/mm³) and high C - reactive protein level (114mg/l). Serum ELISA

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for HIV, syphilitic serology, HLA B51 and HLA B27 were negative. The patient had normal serum angiotensin-converting enzyme activity.

Chest x-ray showed an area of soft-tissue opacity in the left upper lobe (Fig.1). A chest computed tomography scan confirmed the presence of multiple lung nodules with a cavitory lesion in the left upper lobe (Fig.2). Acid fast staining was negative. Interferon gold test for tuberculosis (Qantiferon) was highly positive (TB1 at 8,67 and TB at 7,25). The diagnostic of hypopion uveitis secondary to lung tuberculosis was made. The systemic antibacillary treatment included isoniazid, rifampicin, ethambutol and pyrazinamide in the first 2 months, whereas, isoniazid and rifampicin for the next 4 months. After two months of systemic treatment, culture for acid-fast bacilli was positive. Long-term follow-up has not shown any recurrence of inflammation.

Discussion:-

Mycobacterium Tuberculosis could either directly invade ocular tissues or cause an immune-mediated ocular reaction via an infection elsewhere in the body [2]. The most common ocular presentations of tuberculous uveitis are disseminated choroiditis, focal choroiditis or serpiginous choroiditis [3].

Typically, anterior tuberculous uveitis presents as a chronic granulomatous inflammation [4]. Our patient presented with an unusual form of tuberculous uveitis, namely, acute non granulomatous anterior uveitis associated to an hypopion [1, 5]. Hypopion is uncommon in tuberculous uveitis [1, 6]. It can be present in cases of uveitis secondary to systemic diseases, such as spondyloarthropathy commonly associated with HLA-B27. The back pain of HLA-B27-associated spondyloarthropathy is usually present [7]. The hypopion in association with Behcet's disease is common. 98% of these patients would be expected to have a history of oral and genital ulceration [8].

When evaluating a patient with uveitis, detailed ocular and systemic history should be checked up. Patients originating from an area in which tuberculosis is endemic should raise suspicion of tuberculous uveitis. In addition, systemic symptoms such as fever, night sweats, weight loss, lymphadenopathy, cough and erythema nodosum might be present. Therefore, including questions identifying these factors is important to choose selective investigations.

In addition, sarcoidosis is considered to be the most important differential diagnosis and should be taken into account when investigating a patient with tuberculous uveitis.

In the present case, the systemic history in combination with radiological evaluation and blood test examination confirmed the final diagnosis. Quantiferon-tuberculosis Gold examination should be included in the diagnostic tools when investigating an uveitis.



Figure 1:- Chest x-ray showed an area of soft-tissue opacity in the left upper lobe.

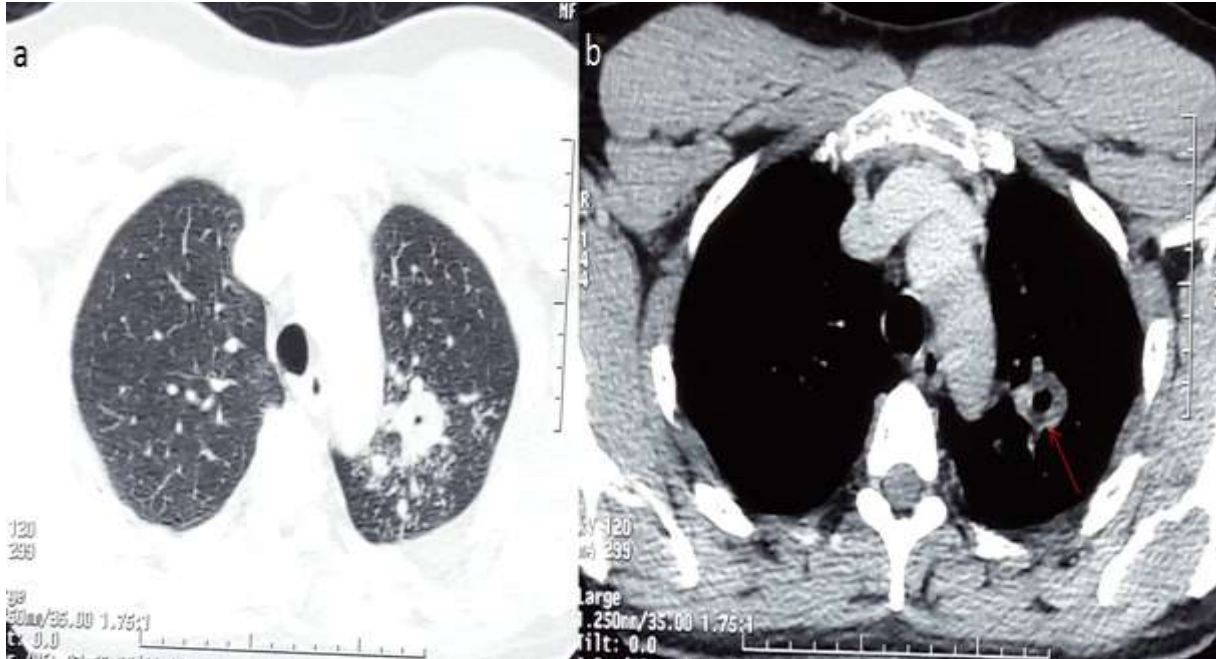


Figure 2:- chest computed tomography scan revealed the presence of multiple lung nodules (a and b), with a cavitary lesion in the left upper lobe (red arrow).

Conclusion:-

Our case highlights that tuberculosis must be considered in a case of hypopyon, especially in endemic areas. Waiting for the results of the culture, Quantiferon-tuberculosis Gold may be helpful to salvage such eyes by starting an appropriate treatment.

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