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CASE REPORT

OCULAR AND OSTEOARTICULAR TUBERCULOSIS IN A YOUNG PATIENT. CASE REPORT

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Abstract

Case report: A young healthy patient, health-care worker in a state hospital, presented in the eye department complaining of pain and blurred vision in the left eye for approx. 2 weeks. Examination revealed a VA of 12/ 20 in the left eye, an interstitial keratitis, some signs of vitreal inflammation and two chorioretinal mass lesions (at echography appearing cystic) in the affected eye. She also mentioned a chronic pain in the right wrist. No systemic association was found. Based on the orthopaedic examination, biopsy, and surgical intervention, a strong suspicion of ocular tuberculosis was made and the patient was advised to start tuberculostatic treatment for 12 months and ocular steroidian treatment for 4 months.

The ocular manifestations regressed totally after 3 months of treatment, the VA of the left eye improving at 20/ 20.

Conclusion: Tuberculosis can present many manifestations, with multi systemic involvement. Ocular tuberculosis is a difficult diagnosis and thus requires thorough multi-disciplinary investigations.

Keywords: choroidal tuberculoma, interstitial keratitis, ocular tuberculosis, osteoarticular tuberculosis, wrist pain

Case report

D.H., a 34-year-old female patient, referred to us complaining of redness, pain and blurred vision in her left eye for the past two weeks, and with noticeable vision loss in the same eye for about three days. She mentioned working in healthcare in an ENT department of a state hospital. She had never been to an ophthalmology consultation before. On detailed questioning, she did not mention any systemic disorders or pathologies or any heredo-collateral antecedents.

Her best-corrected vision at the time of presentation was 20/ 20 without correction in the right eye and 12/ 20 without correction in the left eye.

The examination findings were normal for the right eye (anterior pole and fundus).

A detailed examination of her left eye revealed an anterior pole with conjunctival hyperemia, a cornea with an aspect of interstitial

keratitis, without any other signs of inflammation in the anterior chamber, photomotor reflex present and clear lens.

Fundus examination revealed the presence of vitreous cells, flare and two elevated masses in the inferonasal quadrant (about 1,5 and 2 disc diameters size) with sub-retinal exudates and attached retina. The surrounding inferonasal quadrant vitreous showed a marked haze, not allowing a good visualization.

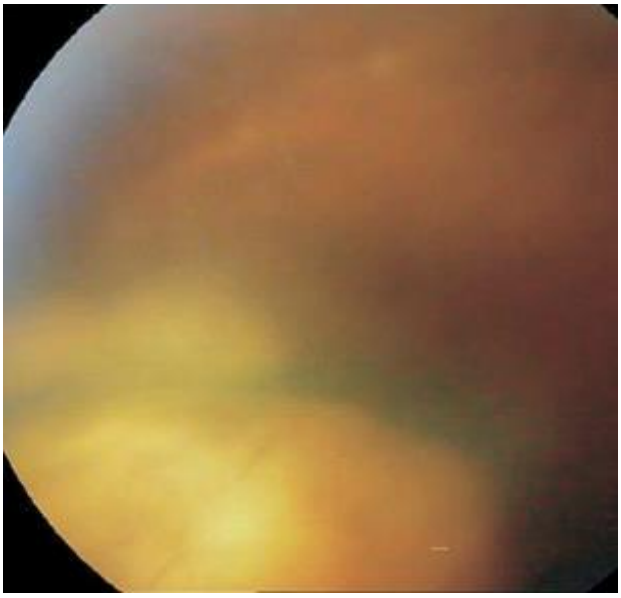

Fig. 1 Surrounding inferonasal quadrant vitreous showing a marked haze

In B-Scan, the lesions were described as cystic, suggestive of abscess (?). There was no evidence of choroidal excavation or any calcifications.

FFA showed a marked hyperfluorescence around the lesion in the early phase. The lesion also showed an early hypofluorescence, the appearance of dye within the lesion was only in the late-phase, this intra-lesional hyperfluorescence increasing over the later phases until the appearance of a homogenous hyperfluorescence.

Right eye FFA and echography were normal.

Her ocular examination and the FFA findings were collaborative for an inflammatory lesion, though a rare possibility of a neoplasm was also suspected.

We explained our suspicions to the patient when she started mentioning a chronic pain in the right wrist joint, which appeared some time before (could not say how much) and for which she did not do any treatment. We recommended a list of investigations: full complete blood count, ESR, CRP, coagulation probes, proteins, uric acid, urea, creatinine, bilirubin, glucose, lipid metabolism probes, hepatic enzymes, Ag Hbs, Ac HCV, HIV, VDRL, TPHA, IgM and IgG Ac anti-toxoplasmosis, urine examination, pulmonary X-ray, abdominal and pelvic ultrasound and an orthopedic examination. She received local steroidian anti-inflammatory treatment in that period of results expectation.

After 14 days, she came back with a normal blood profile and biochemistry, except for a mildly raised ESR. Chest X-Ray, abdominal and pelvic ultrasound was normal.

Orthopaedic exam: at the moment of the first visit in our clinic, the patient accused intense pain in the right wrist joint with a slow evolution over time. After the clinical and X-ray exams, the presumed diagnosis was osteoarthritis of the right wrist joint. Clinically, there was no high local temperature of rash, classic signs of bacillary osteoarthritis.

After the primary clinical and paraclinical exams, the orthopaedic surgeon suspected osteoarticular tuberculosis of the wrist and secondary osteoarthritis. In those cases, the protocol recommended a biopsy and surgical treatment. The bioptic examination established the diagnosis of tuberculosis of the wrist. The orthopaedic treatment was wrist arthrodesis with plate and screws with an excellent evolution and a favorable result.

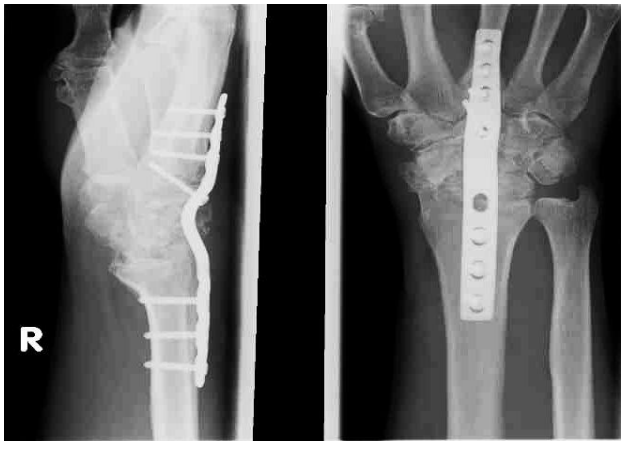

Fig. 2 Orthopaedic treatment: wrist arthrodesis with plate and screws

During this time, the patient maintained the VA of 12/ 20 in the left eye. Also, the anterior and posterior pole aspects were unchanged from the last control. She was advised a depot steroid (triamcinolone) injection in the affected eye, but refused.

The results became evident for the diagnosis of ocular tuberculosis and the patient received tuberculostatic treatment for 12 months.

After three months of treatment, the VA in the left eye was 20/ 20 without correction, the anterior pole was normal, without any signs of inflammation, and the fundus lesions regressed leaving some infero-nasally pigmentary scars. The local steroidian treatment was continued for one more month and then stopped.

Discussion

Ocular tuberculosis usually occurs in apparently healthy individuals and can lead to irreparable, vision threatening damage to the eye. (1,2)

On the other hand, an innocuous ocular involvement may be associated with significant systemic tuberculosis. (3)

As in our case, the ocular finding can help the physician make a diagnosis of systemic tuberculosis.

There are only a few reported cases of choroidal tuberculomas, and it may present with or without active extrapulmonary tuberculosis.

A lesion like this needs a differential diagnosis with a choroidal melanoma. (4)

The diagnosis of ocular tuberculosis is usually presumptive and depends upon indirect evidence, a definitive diagnosis requiring an inter-specialty interaction and a high clinical suspicion. (5)

Extrapulmonary tuberculosis is more difficult to diagnose than pulmonary disease, often requiring invasive procedures. (6)

Definitive diagnosis in such cases is difficult but not impossible.

Treatment is another challenge for the treating ophthalmologist.

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