Orbital granuloma: a rare manifestation of extrapulmonary tuberculosis

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DESCRIPTION

An 86-year-old woman presented with a 2-year history of progressive right eye blindness associated with ocular retraction and ptosis, revealing an intraorbital nodule (figure 1A). She mentioned no other symptoms aside from initial ipsilateral purulent conjunctivitis, which resolved under local treatment. No fever, pulmonary symptoms or significant weight loss were reported. The patient’s main medical history consisted of high-blood pressure, right retinal detachment 30 years previously, left hip replacement and binocular cataract surgery a few years prior. Neither she nor her relatives had a history of or contact with tuberculosis. She had not travelled to any developing countries.

Despite the ophthalmological anomalies, physical examination did not present any abnormality: no adenopathies and no spinal or neurological anomalies. Brain MRI revealed a right orbital mass of 23×23×25 mm with contrast enhancement after gadolinium injection. Whole-body 18F-fluorodeoxyglucose positron emission tomography scan showed...
hypermetabolism at the orbital lesion (SUVmax, 33; Figure 1C) and at another lesion facing the anterior peritoneum (SUVmax, 24; Figure 1E). Thoracic CT was normal. Repeated interferon-γ release test (QuantiFERON) and tuberculin skin test were negative, as were Bartonella, Rickettsia and HIV serology. CD4 count was 368/mm³ (32%). Routine biochemistry and haematology, including C reactive protein, were normal. No lymphopenia was noted and no leucocytes were found in the urine. ACE was normal. Intraorbital biopsy was performed twice, revealing a giant cell granuloma with caseous necrosis. Two samples were cultured, without finding any mycobacteria. Nocardia, Bartonella, Rickettsia, and HIV serology were negative. CD4 count was 368/mm³ (32%). Routine biochemistry and haematology, including C reactive protein, were normal. No lymphopenia was noted and no leucocytes were found in the urine. ACE was normal. Intraorbital biopsy was performed twice, revealing a giant cell granuloma with caseous necrosis. Two samples were cultured, without finding any mycobacteria. Nocardia, Bartonella, Rickettsia, and HIV serology were negative. CD4 count was 368/mm³ (32%). Routine biochemistry and haematology, including C reactive protein, were normal. No lymphopenia was noted and no leucocytes were found in the urine. ACE was normal. Intraorbital biopsy was performed twice, revealing a giant cell granuloma with caseous necrosis. Two samples were cultured, without finding any mycobacteria. Nocardia, Bartonella, Rickettsia, and HIV serology were negative. CD4 count was 368/mm³ (32%). Routine biochemistry and haematology, including C reactive protein, were normal. No lymphopenia was noted and no leucocytes were found in the urine. ACE was normal. Intraorbital biopsy was performed twice, revealing a giant cell granuloma with caseous necrosis. Two samples were cultured, without finding any mycobacteria. Nocardia, Bartonella, Rickettsia, and HIV serology were negative. CD4 count was 368/mm³ (32%). Routine biochemistry and haematology, including C reactive protein, were normal. No lymphopenia was noted and no leucocytes were found in the urine. ACE was normal. Intraorbital biopsy was performed twice, revealing a giant cell granuloma with caseous necrosis. Two samples were cultured, without finding any mycobacteria. Nocardia, Bartonella, Rickettsia, and HIV serology were negative. CD4 count was 368/mm³ (32%). Routine biochemistry and haematology, including C reactive protein, were normal. No lymphopenia was noted and no leucocytes were found in the urine. ACE was normal. Intraorbital biopsy was performed twice, revealing a giant cell granuloma with caseous necrosis. Two samples were cultured, without finding any mycobacteria. Nocardia, Bartonella, Rickettsia, and HIV serology were negative. CD4 count was 368/mm³ (32%).

Learning points

- Orbital tuberculoma is an uncommon form of extrapulmonary tuberculosis.
- Interferon-γ release test (QuantiFERON) and tuberculin skin test could be negative in patients with extrapulmonary tuberculosis.
- Screening for synchronous tuberculosis lesions usually reveals other disease locations.
- Prognosis is usually good and standard 6-month antituberculosis therapy can be prescribed.

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