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Case report

A neuro-Behcet's lesion in oculomotor nerve nucleus

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Objective – Fascicular oculomotor nerve involvement is occasionally seen in Behcet's disease, but nuclear involvement is very rare. *Case presentation* – A 25-year-old woman presented with the Behcet's symptoms and the left eye problems. Physical examination revealed muco-cutaneous lesions, eyelid ptosis, mydriasis, upward and medial gaze palsy and lateral deviation on the left eye. Serologic tests were positive. An inflammatory lesion was detected in the left oculomotor nerve nucleus on magnetic resonance imaging. Neuro-Behcet's disease was considered the most likely diagnosis. *Result* – Dexamethasone treatment was ordered. Muco-cutaneal lesions, laboratory abnormalities were normalized after 1 year; but oculomotor nerve palsy persisted in spite of improvement in radiological findings. *Conclusion* – Clinical signs of oculomotor nerve palsy may persist despite the radiological improvement.

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Key words: Behcet's disease; oculomotor nerve nucleus; steroids

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Behçet's disease (BD) is a chronic, multisystem inflammatory disorder and central nervous system involvement could be as the initial feature of the disease (1). The most commonly involved brain area is the brain-stem in the neuro-Behcet's disease (NBD) and isolated nuclear oculomotor nerve lesion is very rare (2, 3). The nuclear syndrome of oculomotor nerve is characterized by complete ipsilateral third cranial nerve palsy associated with paresis of elevation in contralateral eye-lid. The diagnosis depends on clinical criteria such as ulcers, uveitis, vasculitis, synovitis, meningo-encephalitis, and laboratory testing, and radiologic studies particularly magnetic resonance imaging (MRI) (4).

Case report

A 25-year-old woman was admitted to hospital with a history of recurrent oral apthous and genital ulcerations and left eye problems. At physical examination, oral apthous lesions, genital ulcerations, left eyelid ptosis and mydriasis with unreactive pupil to light and left upward and medial gaze palsy were recorded. Neuroophthalmologic examination were normal on the right eye. Pathergy test and HLA-B5 were positive. Elevated protein content and pleocytosis were detected in the cerebrospinal fluid examination. T_1- weighted MRI with gadolinium enhancement showed a hyperintense ring lesion, 6×2 mm in diameter, in the left oculomotor nerve nucleus (Fig. 1a,b). Neuro-Behcet's disease was considered the most likely diagnosis. Low dose of dexamethasone (1 mg/kg/day) was given orally for 1 month at 3 months intervals. Laboratory findings were normalized and the lesion was totally disappeared on MRI 1 year later (Fig. 2a,b). Extraocular complaints of the patient were healed but signs of oculomotor nerve palsy continued (Fig. 3).

Discussion

Neuro-Behcet's disease occurs in approximately 5% of BD. The most commonly involved region is brain-stem, but hemispheres, meninges and spinal cord can also be affected either individually or in combination (5). Behcet's disease has rarely an isolated symptom and isolated peripheral nerve involvement (3, 6).

A single lesion of the brain stem confined to the periaqueductal grey matter between the levels of