Letters to the Editor

Behçet's disease associated with trisomy 8 in a young Italian girl – a case report

Sirs,

Different reports emphasize the association between trisomy 8 and Behçet's disease (BD) with a concomitant myelodysplastic syndrome (MDS) (1-3). These reports mainly describe adult patients with severe gastrointestinal inflammatory disturbances and impaired haemopoietic function.

We present the case of a Caucasian child from the Mediterranean part of Italy with a diagnosis of homogeneous partial trisomy 8. This karyotype alteration was thought to be responsible for bilateral pyelocalyceal ectasia, corpus callosum agenesis, severe psychomotor retardation, and deep palmo-plantar plicae. The young patient was referred to our Oculo-Paediatric Unit in January 2006 at the age of 7 years old because the parents believed that there had been recent deterioration in visual acuity. Clinical history revealed mild left eye deviation, first noticed at the age of 4 but recently exacerbated, oral ulcers which had recurred at least five 5 times in the previous twelve months often accompanied by mild fever, erythema nodosum, and knee arthritis. Autoantibodies and the HLA B51 assay tested negative. General lab investigations showed an erythrocyte sedimentation rate at 1 h of 45 mm; moderately increased alpha-2 globulin level (13.3%) and reticulocytes (17%); decreased haemoglobin (10.8 g/dL), mean corpuscular volume (64.4 fL), and serum iron (36 μd/dL). The bone marrow biopsy excluded MDS, and the evaluation of the haemoglobin phenotype revealed raised foetal haemoglobin (HbF) with low HbA2 levels, consistent with partial δ-β-thalassemia (also affecting one of the mother's sisters).

At our first ophthalmologic examination, the patient was hardly able to orient herself in the room, and she could not catch coloured balls rolling on the table. Given the poor patient compliance, a detailed evaluation was possible only under general sedation. The anterior segment of the eye revealed fine keratic precipitates with aqueous cellularity in both eyes, irido-lental synechiae in the right eye (OD) and pupillary seclusion in the left (OS). A posterior subcapsular cataract and severe vitreal haze prevented observation of the fundus in both eyes. A B-scan ultrasound documented tractional retinal detachment in OS and mobile serous detachment in OD. The evidence of active bilateral panuveitis, along with those of recurrent oral ulcers and erythema nodosum, supported the diagnosis of BD, according to the criteria of the International Study Group for Behçet's Disease (4). Considering the young age of the patient and the serious ocular and systemic manifestations, an immunosuppressive treatment was started (5, 6). This consisted of an initial cycle of three methilprednisolone boli (1 mg/kg/day i.v.), followed by oral prednisone (10 mg/day, four times/week) combined with cyclosporine (3 mg/kg/day) and azathioprine (2.5 mg/day). Five months later, oral ulcer, fever and erythema nodosum had definitely stopped and the knee arthritis had notably improved. The detached OD retina had reabsorbed completely, and the child was able to recognize symbols and colours in near and distant vision with OD (Lea optometric and chromatic tables) (7). The tractional retinal detachment remained unchanged in OS. One year later, the visual acuity was stable with no evidence of active BD or blood cell malignancy. Therefore, cyclosporine was discontinued while a tapered association of oral prednisone and azathioprine was maintained, in view of the imminent need for cataract surgery, to be performed with preoperative protection against uveitis reactivation.

Two exhaustive reviews recently discussed the possible association of BD with trisomy 8 (2, 3). In the older review, all 27 patients mentioned had a combined MDS, which developed before the BD in 2/3 of the subjects (2). Only four patients showed uveitis (the youngest was 34 years old). A partial or complete trisomy 8 was found in 19 subjects (70%), and severe inflammatory intestinal involvement developed in 18 of these patients. This association confirmed a relationship between trisomy 8 and the gastrointestinal manifestations of BD (8). The subsequent revision added 13 cases of combined BD and MDS (the youngest was 25 years old) (3). Among these, nine subjects (70%) had trisomy 8, none with signs of ocular inflammation. Again, trisomy 8 was related to the pathogenesis of BD-like symptoms occurring in MDS patients with this particular chromosomal abnormality (9).

Here, we report the youngest case of an association between BD and trisomy 8. So far, our case is free from MDS and inflammatory gastrointestinal involvement. The most peculiar findings are the early onset of BD, prevalence of ocular inflammation instead of intestinal involvement and absence of MDS. The partial δ-β-thalassemia was considered an unrelated hereditary finding. Therefore, this letter aims to constructively add to the previous reports by demonstrating that trisomy 8 can also be strongly related to BD in childhood (10). Uveitis may be the main sign of the inflammatory disease, and the associated haematological disturbances can be different from MDS.

P. MORA, *MD*
F.O. AVELLIS, *MD*
L. ZAVOTA, *MD**
J.G. ORSONI, *MD*

*Institute of Ophthalmology and *Paediatric Division, University of Parma, Italy.*

Address correspondence to:
Paolo Mora, MD, Inflammatory and Autoimmune Diseases Unit, Ophthalmology Institute, University of Parma, via Gramsci 14, 43100 Parma, Italy.
E-mail: paolo.mora@unipr.it

Competing interests: none declared.

References

1. YANO K, EGUCHI K, MIGITA K *et al.*: Behçet's disease complicated with myelodysplastic sindrome: a report of two cases and review of the literature. *Clin Rheumatol* 1996; 15: 91-3.
2. EDER L, ROZENBAUM M, BOULMAN N *et al.*: Behçet's disease, myelodysplastic syndrome, trisomy 8, gastroenterological involvement – An association. *Clin Exp Rheumatol* 2005; 23: 91-5.
3. KAWABATA H, SAWAKI T, KAWANAMI T *et al.*: Myelodysplastic syndrome complicated with inflammatory intestinal ulcers: significance of trisomy 8. *Intern Med* 2006; 45: 1309-14.
4. CRITERIA FOR DIAGNOSIS OF BEHÇET'S DISEASE: International study group for Behçet's disease. *Lancet* 1990; 335: 1078-80.
5. JABS DA, ROSENBAUM JT, FOSTER CS *et al.*: Guidelines for the use of immunosuppressive drugs in patients with ocular inflammatory disorders: recommendations of an expert panel. *Am J Ophthalmol* 2000; 130: 492-513.
6. YURDAKUL S: Evidence-based treatment of Behçet's syndrome. *Clin Exp Rheumatol* 2006; 24: 553-5.
7. GRAF MH, BECKER R, KAUFMANN H: Lea symbols: visual acuity assessment and detection of amblyopia. *Graefes Arch Clin Exp Ophthalmol* 2000; 238: 53-8.
8. OHNO E, OHTSUKA E, WATANABE K *et al.*: Behçet's disease associated with myelodysplastic syndromes. A case report and a review of the literature. *Cancer* 1997; 79: 262-8.
9. CHEN G, ZENG W, MIYAZATO A *et al.*: Distinctive gene expression profiles of CD34 cells from patients with myelodysplastic syndrome characterized by specific chromosomal abnormalities. *Blood* 2004; 104: 4210-8.
10. KUTTICAT A, HASKARD D, CHAKRAVARTY K: Behçet's disease associated with trisomy 8 in a male caucasian patient from Great Britain – A case report. *Clin Exp Rheumatol* 2005; 23: 108-9.