Multiple cerebral abscesses in a woman with giant cell arteritis

Sirs,

Giant cell arteritis (GCA) is effectively suppressed by glucocorticoids; however, many side effects, such as an increase in susceptibility to infections and diabetes, may appear (1, 2). We present an elderly female patient with GCA who developed a rare complication - multiple cerebral abscesses - 2 months after corticosteroid therapy was started.

A 73-year-old woman consulted us in May 1998 because of headache and weight loss. Her ESR was 81 mm/hr. A temporal artery biopsy showed GCA findings. Prednisone therapy was started (40 mg/day) with a progressive improvement in the patient's symptomatology and a marked decrease in the ESR to within normal limits (6 mm/hr). One month later, hyperglycemia (325 mg/dl) was detected, and oral antidiabetic therapy was prescribed.

Two months after the GCA diagnosis was established, the patient was admitted to hospital because of intense weakness and progressive difficulty in left arm movements. She did not report headache or fever. A decrease in vision in the left eye, difficulty with memory, and a motor deficit in the left superior limb were observed. Hyperglycemia (318 mg/dl) and an increased ESR (38 mm/hr) were the only laboratory abnormalities found. A urine culture revealed *Staphylococcus aureus.*

Chest X-ray and echocardiogram were normal. A brain CT scan showed multiple areas of decreased attenuation at the right frontal and temporal lobes, surrounded by edema. CT scan with contrast material revealed a multi-compartmental ring-enhancing process at the same site (Fig. 1). The different sizes and the proximity of the lesions were more suggestive of an infectious process than of cerebral metastasis from the radiological point of view.

She required insulin, while metronidazole (1 g three times daily) plus cefotaxime (2 g six times daily) were given as empiric antibiotic treatment for the cerebral abscesses.

The patient did not present any symptom or sign of septicemia and her GCA was in remission. However, during the hospital stay she had a progressive worsening of vision in the left eye and amphotericin B treatment was added for presumed mucormycosis.

Stereotaxic aspiration from brain abscesses was performed. Gram stains of purulent material (5 cc) removed during this procedure tested positive for Gram coccus and negative for Gram bacillus. Nevertheless, culture of the purulent material was negative for bacterial and fungal organisms.

Amphoteridn was interrupted and vancomycin (1 g three times daily) was added, showing a progressive disminution of neurological symptom and signs. Four weeks after starting vancomycin therapy, CT scan revealed that the lesions had decreased in size, and 8 weeks later the patient was asymptomatic. CT scan performed at this time showed that the lesions had almost completely disappeared.

Multiple cerebral abscesses and iatrogenic diabetes developed in this patient after 2 months of high dose corticosteroid therapy. A case of fungal brain abscess, which was treated with steroid therapy because the clinical picture mimicked GCA symptoms, has been described (3). Temporal artery biopsy and the excellent response to corticosteroids confirmed GCA in our patient. Cerebral abscesses are a rare complication, which to our knowledge has not been reported as a consequence of steroid therapy in patients with GCA.

The infectious origin in this patient is unknown. Brain abscesses were multiple and localized around the right medium cerebral artery, suggesting a hematogenous dissemination (4). A urine infection was detected, but the patient did not have any symptom or sign of septicemia. However, our patient was diabetic and elderly, and both circumstances might heve masked symptoms of infectious disease. Stereotaxic aspiration demonstrated negative Gram bacillus and positive Gram coccus. Both have been described in immunocompromised hosts (5-7).

In conclusion, we present a patient with GCA and multiple cerebral abscesses which showed a good response to medical treatment. Corticosteroids might have been the main cause of this rare complication.

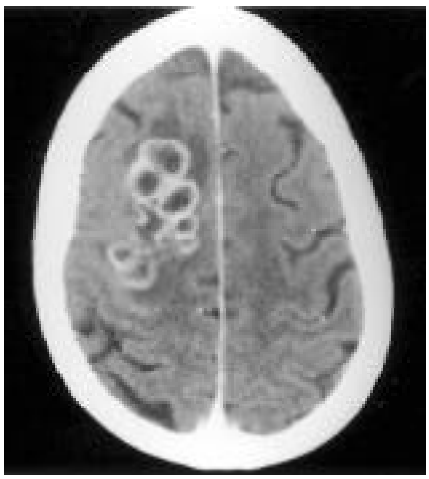

Fig. 1. CT scan with contrast showing multiple images suggestive of brain abscess.

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Juvenile arthritis in Turner's syndrome

Sir,

I was quite interested to read Dr. F. Zulian's article in the Journal (1). The authors described only European and North American patients with Turner's syndrome, however. I would like to add a case of Japanese chronic arthritis (polyarticular type) in Turner's syndrome to your patient group. I believe that this represents the first Japanese case to be reported in the literature. She had 45X/46XX chromosome mosaicism, and the sex-determined region of Y:SRY was negative. The growth plates of both wrist joints were still open at age 22 years.

Our patient's case was complicated by non-insulin dependent diabetes mellitus and Hashimoto's thyroiditis, although these two conditions were well controlled. She first developed arthritis at 14 years of age, with morning stiffness, swelling, and pain in the PIP and wrist joints. Her PIP joints showed progressive deformity over 2 years. She had