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SEVERE PROXIMAL MUSCLE WEAKNESS IN A PATIENT WITH ANKYLOSING SPONDYLITIS WITH MAJOR CLINICAL RESPONSE TO SECUKINUMAB

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BACKGROUND

Ankylosing spondylitis (AS) is an inflammatory arthropathy that mainly affects axial skeleton and that usually presents with chronic low back pain in young patients. Several studies have shown that about two thirds of patients with this disease did not evolve with functional limitations. Nevertheless, a delay in diagnosis and treatment can negatively impact on patient's quality of life.

CASE REPORT

A 20-year-old male patient with a 2-year low back pain history. In the last 6 months, patient presented worsen of pain with limitation and inflammatory axial symptoms, even with the continuous use of non-steroidal anti-inflammatory drug. Patient denies peripheral joint tender, extra-articular manifestation and family history of any rheumatic diseases. On physical examination, it was observed a reduced range of motion in bilateral hips, knees in bilateral flexion pelvic girdle with grade III weakness associated with muscle fasciculations, muscles hypotrophy of the thighs, with simultaneous co-stimulation muscle compartments of the lower limbs (agonists and antagonists muscles) and modified Schober's test marked 3 cm. In the first visit, the patient presents laboratory tests with anemia (Hb 11.3 g/dL), elevated inflammatory markers (CRP: 26 mg/L, ESR 57 mm/h) and protein electrophoresis with polyclonal gammopathy. Patient presents HLA-B27 positive, normal muscle enzymes, sacroiliac X-ray with signs of symmetrical sacroiliitis (Fig. 1; grade III – mNY criteria), spine X-ray without evidence of syndesmophyte, ENMG demonstrating myopathy affecting proximal muscles of the left hemibody. The pelvic MRI evidenced chronic inflammatory sacroiliitis, enthesitis in the ischial tuberosities and iliac crests, bilateral femoroacetabular arthrosis and thigh MRI shows significant muscle hypotrophy, without muscle edema and fat replacement (Figs. 2 and 3). Baseline disease parameters showed high values of BASDAI (7) and ASDAS-CRP (4.7). The diagnosis of AS with muscle changes secondary to immobility in the context of functional disability was done. During follow-up, the patient did not respond a good response to NSAIDs and secukinumab was indicated to control clinical and laboratory inflammation. Patient was also referred to physiotherapy for brain neuromodulation. After 6 months of treatment, patient presents a major clinical response (delta ASDAS-CRP equal 2.5) with a remarkable reduction of activity disease parameters; BASDAI = 3.3 and ASDAS-CRP = 2 (Fig. 4).

Figure 1. Sacroiliac joint X-ray.

Figure 2. Thigh MRI T1 coronal

Figure 3. Thigh MRI T2 STIR coronal

Figure 4. Disease activity parameter values of BASDAI and ASDAS through 6 months of treatment.

CONCLUSION

Spondyloarthritis is a heterogeneous group of diseases and the diagnosis can sometimes be a challenge. Therefore, clinical physicians and rheumatologists should be alert to the atypical presentations of this condition in order to establish an early diagnosis and prevent physical limitations.