Onset of rheumatoid arthritis in a patient with ankylosing spondylitis

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Dear Sir,

Overlapping syndromes are described in the scientific literature and comprises the linkage of at least two different rheumatic diseases which each one. The most common overlapping of rheumatic diseases is between rheumatoid arthritis and Sjögren's syndrome. However, several other clinical associations have been described in the medical literature. Few previous articles describe the rare association of rheumatoid arthritis and ankylosing spondylitis, comprising until 2011 about 19 cases of this rare association[1-13].

Herein, the authors report one additional case of the rare association of a patient rheumatoid arthritis and ankylosing spondylitis.

A 63-year-old man started in 1983 with low back pain with inflammatory characteristics and morning stiffness with long duration. He has also arthralgia on his right ankle and right Aquilian enthesisits. His physical examination demonstrated reduction of thoracic expansion, flexion and lateralization of his column. Modified Schober test was 5cm and pain on his sacroiliac joints. X-ray confirmed bilateral sacroiliitis (Figure 1) and thoracic–lumbar spine x-rays showed syndesmophytes (Figure 2). Erythrocyte sedimentation rate (ESR) was 70 mm/1st hour and C-reactive protein (CRP) of 48mg/L. HLA-B27 was positive. A diagnosis of ankylosing spondylitis was performed and he was treated with indometacin 50 mg twice a day and he experienced good clinical response. After 10 years, he started bilateral exuberant synovitis of wrists, symmetrical involvement of proximal interphalangeal joints, arthritis of knees and ankles. At that moment, ESR was 54 mm, CRP 48 mg/L. Rheumatoid factor was positive using latex agglutination and a positive anti-CCP 31.5 IU was detected. X-ray demonstrated destructive erosions and lesions on his wrists (Figure 3). A diagnosis of rheumatoid arthritis was done. A chronic renal failure was also diagnosed (creatinine 2.1 mg/dL and renal ultrasound revealed chronic nephropathy and cortical atrophy) with chronic disease anemia (hemoglobin 9.8 g/L). Deflazacort 15 mg/day was then initiated associated with sulphasalazine 1 g/day (when 2g/day was used liver enzymes increased) and methotrexate 20mg/week subcutaneously. He was referred to nephrology Department and erythropoietin, furosemide and alopurinol were started and dialysis was indicated. Due to the bad clinical control, adalimumab (40 mg SC each every two weeks) was then started. After 3 months, he had herpes zoster and adalimumab was stopped and he was treated with intravenous acyclovir. After zoster treatment, infliximab 5mg/kg at 0, 2, 4 and then each 8 weeks was then initiated. Currently, he has moderate activity of rheumatoid arthritis (DAS28 4.88), ESR 52 mm/1st hour and hemoglobin 12.8g/L, and no lumbar pain.

Our patient fulfilled the modified New York criteria for AS diagnosis[14], he had the presence of grade 4 of sa-

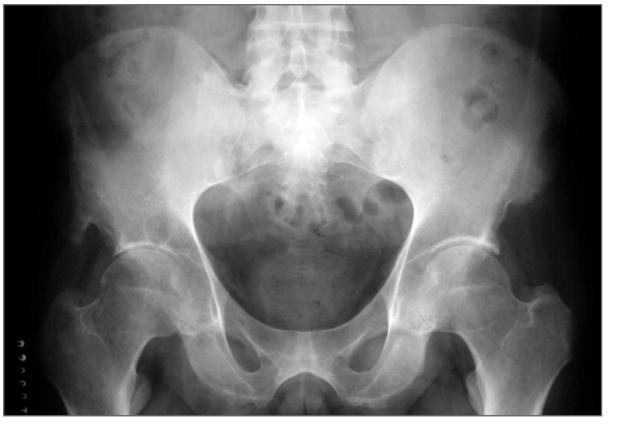

FIGURE 1. Sacroiliac x-ray confirming complete fusion of sacroiliac joints

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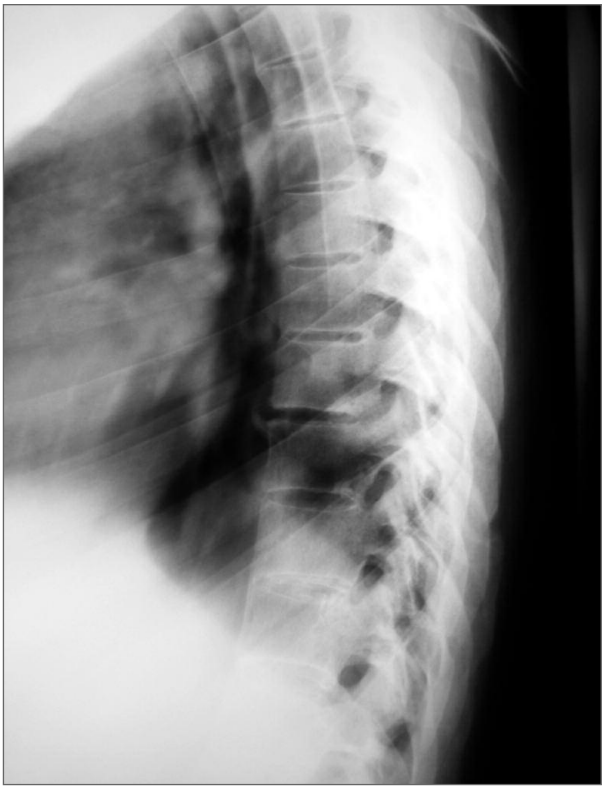

FIGURE 2. Lateral dorsal x-ray demonstrating syndesmophytes

croliitis. He also evolved after 10 years with polyarthitis, exuberant synovitis, positivity for anti-CCP and rheumatoid factor fulfilling the ACR criteria for RA[15].

The previous study from Sattar et al. described a patient with a rare overlap of rheumatoid arthritis, ankylosing spondylitis and dermatomyositis besides of diabetes mellitus. Importantly, this patient had RA and evolved with AS[5]. One other report that describes a patient who had RA and subsequently developed AS[6]. Scherak et al. in 1979 reported a case with simultaneous RA and AS and reviewed the literature since 1975 which described 13 cases of this unique association[4]. Another interesting combination was reported by Lecoules et al. of a 63-year-old man with RA with Felty's disease that evolved with AS[2]. In an original study, 184 patients with AS and/or reactive arthritis were examined for the presence of RA. Interestingly, the authors found three subjects with concomitant RA and AS, all of them were men, and it gave a frequency of 2.7% in that study[3].

There are some demographic characteristic that distinguish RA from AS, including female predominance in the former and the coexistence of the two condi-

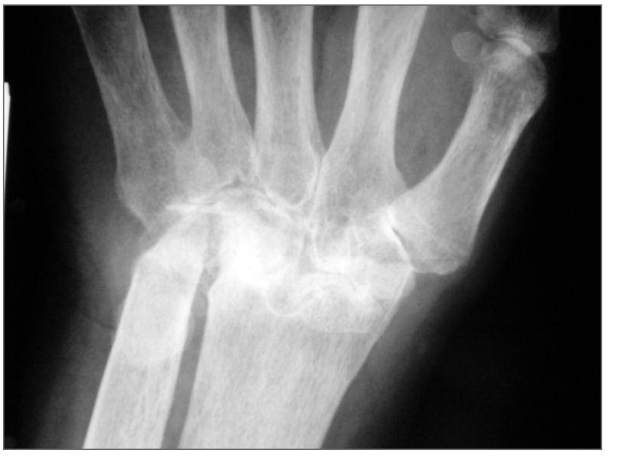

FIGURE 3. Hand x-ray demonstrating severe erosion destruction of wrist joints

tions was estimated in 0.0002 to 0.0005%[1]. Then it is expected about 360-900 cases in Brazil of this rare association (population of 180 million).

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REFERENCES

1. Baksay B, Dér A, Szekanecz Z, Szántó S, Kovács A. Coexistence of ankylosing spondylitis and rheumatoid arthritis in a female patient. Clin Rheumatol 2011;30:1119-1122.
2. Lecoules S, el Maghraoui A, Lapeyre E, Lechevalier D, Magnin J, Eulry F. Cystic rheumatoid arthritis with Felty\'s syndrome and ankylosing spondylitis. Ver Rhum Engl Ed 1999;66:292--295.
3. Alexander EL, Bias WB, Arnett FC. The coexistence of rheumatoid arthritis with Reiter\'s syndrome and/or ankylosing spondylitis: a model of dual HLA associated disease susceptibility and expression. J Rheumatol 1981;8:398-404.
4. Scherak O, Seidl G, Kolarz G. Case report of a patient with coexistent rheumatoid arthritis and ankylosing spondylitis. Acta Med Austriaca 1979;6:94-99.
5. Sattar MA, Al-Sughyer AA, Siboo R. Coexistence of rheumatoid arthritis, ankylosing spondylitis and dermatomyositis in a patient with diabetes mellitus and the associated linked HLA antigens. Br J Rheumatol 1988;27:146-149.
6. Martínez-Cordero E, López-Zepeda J, Fonseca MC. Rheumatoid arthritis associated with ankylosing spondylitis defined by scintigraphic and CT abnormalities. Clin Rheumatol 1992;11: 574-577.
7. Hauge T. Chronic rheumatoid polyarthritis and spondyl-arth-

ritis associated with neurological symptoms and signs occasionally simulating an intraspinal expansive process. Acta Chir Scand 1961;120:395-401.
8. Fallet GH, Mason M, Berry H, Mowat AG, Boussina I, Gerster J. Rheumatoid arthritis and ankylosing spondylitis occurring together. Br Med J 1976;1:804-807.
9. Kaarela K. Coexistence of ankylosing spondylitis and rheumatoid arthritis. Duodecim 1982;98:1220-1222.
10. Lemmer JP, Irby WR. Coexistence of HLA-B27 ankylosing spondylitis and DR4 seropositive nodular rheumatoid arthritis in patient with membranous nephropathy. J Rheumatol 1981;8:661-664.
11. Espinoza LR, Dove FB, Osterland CK. Coexistence of ankylosing spondylitis and rheumatoid arthritis in a single family. Arthritis Rheum 1979;22:203-204.
12. Fallet GH, Barnes CG, Berry H, Mowat AG, Roux H, Villiaumey J. Coexisting rheumatoid arthritis and ankylosing spondylitis. J Rheumatol 1987;14:1135-1138.
13. Huskisson EC, Hart FD. Ankylosing spondylitis and rheumatoid arthritis. Proc R Soc Med 1970;63:620.
14. Van der Linden S, Valkenburg HA, Cats A. Evaluation of diagnostic criteria for ankylosing spondylitis: a proposal for modification of the New York criteria. Arthritis Rheum 1984;27:361--368.
15. Aletaha D, Neogi T, Silman AJ, et al. 2010 rheumatoid arthritis classification criteria: an American College of Rheumatology/European League Against Rheumatism collaborative initiative. Arthritis Rheum 2010; 62:2569–2581.