Infectious Spondylodyscitis

To de Editor: Infectious spondylodyscitis (IS) is an affliction with an incidence that has increased over the past years due to an increased life expectancy in patients with chronic disease that leads to conditions with a certain degree of immunosupression, including rheumatic disease. Before the antibiotic era it was a disease that had a high mortality, something that today is rare. Nonetheless, some patients with IS have to be evaluated for the coexistence of infectious endocarditis.

The motive of this letter is to describe 2 clinical cases of IS that occurred in our hospital and to review clinical, diagnostic, and therapeutic aspects on the management of this disease.

Our first case was a 58-year-old male with rheumatoid arthritis and hepatitis C virus infection that presented lower back pain 2 months before and had a systolic heart murmur grade III/VI localized to the aortic valve upon auscultation. Blood analysis showed elevated acute phase reactants. A lumbar spine x-ray showed an L4-L5 listesis. Magnetic resonance (MR) showed lesions compatible with spondylodiskitis of L4-L5 without soft-tissue involvement. An echocardiogram was carried out showing severe aortic insufficiency with vegetations of the aortic valve, which led to a surgical valve replacement. Mantoux testing and *Brucella* serology were negative, as well as cultures from the extracted valve and the material obtained through a computerized tomography (CT) guided puncture from the disc region. We established the diagnosis of infectious spondylodiskitis associated to an endocarditis due to a non-identified germ and treatment with vancomycin and ceftriaxone was started and continued for 8 weeks, with clinical progressive improvement. Our second case was a 45-year-old woman with rheumatoid arthritis, which presented lumbar pain, as well as pain upon palpation on the psoas muscle region of 1 month of progression. Upon auscultation a systolic grade III/VI aortic valve murmur was found, as well as leukocytosis and an elevation of CRP and ESR, with negative Mantoux and *Brucella* serology. The lumbar x-ray was normal; however, erosions on the L4-L5 disk were seen on the CT with an abscess on the right psoas. The echocardiogram and the fundoscopic eye examination were normal, and blood and urine cultures were negative. A percutaneous drainage of the abscess was carried out under echographic control and purulent fluid positive for *Staphylococcus aureus* sensitive to methylcillin and quinolones was found. Treatment with rifampin and levofloxacin was administered for 2 months, leading to improvement.

We have presented 2 cases of IS, one of them associated to an abscess on the psoas as a complication. Recently, an increase in the frequency of primary abscess of the psoas has been seen (without a determined foci of infection).[1] In our second case, the abscess is caused by *S aureus,* something seen frequently in patients with an immunosuppressive disease,[2] including rheumatic disease. Pathogeny is due to an infection of the intervertebral disc by an infectious etiologic agent that can result from dissemination from a distant locus, direct inoculation or infection due to contiguity, though in many patients the primary locus of infection is never identified.[3] Early diagnosis is done through MR, with this technique being the most sensitive to detect abnormalities within the first 2 weeks since the start of symptoms.[4] The most important use of CT is to guide discal region aspirations and obtain samples for culture.[5] The evaluation of the coexistence of infectious endocarditis in patients with infectious spondylodyscitis is necessary in patients with no apparent cause for a spinal infection. In a recently published study, up to 30% of the patients with spondylodyscitis had infectious endocarditis.[6] The signs and symptoms that oblige the evaluation for endocarditis in these cases are: previous cardiac disease, heart failure, positive blood cultures, and infection by Gram positive bacteria; in all pof the patients with these signs and infectious spondylodyscitis it is necessary to rule out an infectious endocarditis even when these symptoms are absent. Treatment with antibiotic coverage for *S aureus* and Gram negative bacteria for 8 weeks at least and, intravenously, for at least 4 weeks is warranted.[7] Surgery is usually reserved for a minority of patients; it is indicated in cases of: disease progression in spite of treatment, bone instability or cord compression and in order to drain an epidural or paravertebral abscess.[8] In cases of psoas abscess, it is customary to drain using CT guidance, with many studies showing that its results are comparable to open surgery.[9]

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Bilateral Pneumothorax in a Patient With Rheumatoid Nodules Colonized by *Aspergillus fumigatus*

To the Editor: Rheumatoid arthritis (RA) is a chronic inflammatory joint disease that preferentially affects hands in a symmetric manner, although it can affect other organs such as the lungs. Therefore, we found interesting to share the case of a patient with pulmonary affection as a complication of RA. He was a 67 year-old male, allergic to metamizole and aspirin, with seropositive RA and rheumatoid nodules that appeared 30 years ago, treated with indomethacin and steroids during the exacerbations of the inflammatory activity, without receiving any remission-inducing treatment. He was an ex-smoker, having consumed 10 packs-year.

He had a personal history of left hidropneumothorax in 2002 that was possibly secondary to a ruptured ampoule, requiring thoracic drainage. In the thoracic computer tomography (CT) there was bilateral, predominantly subpleural nodules (interpreted as ampoules) and a pleural effusion whose microbiologic and cytologic analysis resulted negative. He was hospitalized in August 2006 due to intense right thoracic pain and dyspnea. A chest x-ray showed a practically complete right pneumothorax and a partial left pneumothorax which led us to think once again in a ruptured ampoule as had occurred in 2002. A thoracic drainage was put into place on the right pneumothorax, with an appropriate lung reexpansion, but the pneumothorax reappeared after 48 hours. A mechanical obstruction of the drainage was discarded as the reason for this and the rupture of a new, cavitated nodule was confirmed and merited drainage once more. The pleural effusion turned out to be an exudate according to Light's criteria, with a pleural protein/serum protein coefficient over 0.5, a pleural LDH /serum LDH of over 0.6, with a value of LDH of 2014 U/L, ADA of 54.3 units and a negative culture for mycobacteria. However, there was growth of *Aspergillus fumigatus,* meriting the immediate initiation of antifungal therapy. The laboratory analysis showed an elevation of rheumatoid factor with the rest of the parameters being normal. A clinical worsening of the patient, manifested by intense bilateral thoracic pain, dyspnea, and respiratory insufficiency, with an O_2 saturation of 79% took place. A new thoracic CT was carried out; it showed a left hidropneumothorax that had evolved with respect to the radiographic image, with almost complete atelectasia of the underlying lung and a right pneumothorax, which was reduced to a fine sheet, with an image of associated subcutaneous emphysema (Figure). Parenchimal lung nodules could be seen, mostly subpleural and less than 1 cm in diameter, as well as nonspecific lymphadenopathy, with a fatty core and benign aspect in the axillary, paratracheal, and subcarinal chains. Due to the lack of other clinical data, after a week of treatment with assisted ventilation, thoracic drainage tubes, and antifungal treatment, the patient underwent immediate thoracic surgery. In the samples obtained for analysis, cultures were positive for *A fumigatus* and the biopsy of the nodules described in the CT corresponded histologically to rheumatoid nodules, with the exclusion of ampoules. In conclusion, the relapsing bilateral pneumothorax can be a complication found in patients with RA and subpleural lung nodules. Just as it was described by Adelman et al,[1] a communication or pleuropulmonary fistula due to necrosis of the nodule leads to a cavity susceptible of undergoing superinfection by *A fumigatus.*

Figure. *Thoracic computerized tomography. A pneumothorax and hidropneumothorax as well as small lung nodules can be seen.*

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