the prognosis of the patients.

## APPENDICES

Table 1. Demographic and clinical characteristics.

|  |  |  |
| --- | --- | --- |
|  | N=116 | % |
| Clinical history |  |  |
| High blood pressure | 62 | 53.45 |
| Diabetes Mellitus | 25 | 21.55 |
| Liver cirrhosis | 19 | 16.38 |
| Chronic kidney failure | 19 | 16.38 |
| Active Systemic Malignancy\* | 3 | 2.59 |
| Rheumatoid arthritis\* | 4 | 3.45 |
| Spondyloarthritis\* | 1 | 0.86 |
| Crohn’s disease\* | 1 | 0.86 |
| HIV infection\* | 4 | 3.45 |
| Solid organ transplant receptor\* | 3 | 2.59 |
| Systemic Amyloidosis\* | 1 | 0.86 |
| Splenectomy\* | 2 | 1.72 |
| Previous spine pathology | 68 | 58.62 |
| Prior surgical spine procedure\*\* | 21 | 18.1 |
| Recent spine trauma\*\*\* | 8 | 6.9 |
| Underlying endocarditis\*\* | 14 | 12.07 |
| Concomitant infection\*\*\* | 45 | 39.13 |
| Recent antibiotic treatment\*\*\* | 27 | 23.28 |

\*Considered as immunosuppressed patients

\*\*6months before diagnosis

\*\*\*During last 30 days.

Table 2. Clinical manifestations

Table 3. Microbiological Findings

|  |  |  |
| --- | --- | --- |
| Gender/microorganism | Patients N=88 | % |
| Bacteria | 76 | 86.36 |
| Gram + bacteria | 65 | 73.86 |
| *Staphylococcus spp* | 34 | 34.64 |
| *Streptococcus spp* | 20 | 22.73 |
| *Enterococcus spp* | 7 | 7.95 |
| *Gram positive bacilli spp* | 4 | 4.55 |
| Gram – bacteria | 11 | 12.5 |
| *Escherichia coli* | 6 | 6.82 |
| *Pseudomonas spp* | 3 | 3.41 |
| *Acinetobacter baumanii* | 1 | 1.14 |
| *Brevundimona spp* | 1 | 1.14 |
| Mycobacteria | 9 | 10.23 |
| *Mycobacterium tuberculosis* | 9 | 10.23 |
| Fungi | 3 | 3.41 |
| *Candida auris* | 2 | 2.27 |
| *Candida albicans* | 1 | 1.14 |
| No microbiological confirmation | 28 | 24.14 |

## COMPLIANCE WITH ETHICAL STANDARS

        Funding: No funding source was needed.
        Conflict of Interest: None.
        Ethical approval: Ethical standards covered.
        Informed consent: Not applicable.

## BIBLIOGRAPHY

1. Mylona E, Samarkos M, Kakalou E, Fanourgiakis P, Skouteli A. Pyogenic vertebral osteomyelitis: a systematic review of clinical characteristics. Semin Arthritis Rheum. 2009 Aug;39(1):10-7.
2. Nickerson EK, Sinha R. Vertebral osteomyelitis in adults: an update. [Br Med Bull.](https://www.ncbi.nlm.nih.gov/pubmed/26872859) 2016 Mar;117(1):121-38.
3. Berbari EF, Kanj SS, Kowalski TJ, Darouchi RO, Widmer AF, Schmitt SK et al. 2015 Infectious Diseases Society of America (IDSA) Clinical Practice Guidelines for the Diagnosis and Treatment of Native Vertebral Osteomyelitis in Adults. Clin Infect Dis. 2015 Sep 15;61(6): e26-46.
4. Zarrouk V, Gras J, Dubée V, de Lastours V, Lopes A, Leflon V et al. Increased mortality in patients aged 75 years or over with pyogenic vertebral osteomyelitis. Infect Dis (Lond). 2018 May 10:1-5.
5. Ehrlich GE. Low back pain. Bull World Health Organ. 2003;81(9):671-6.
6. Prodromu ML, Ziakas PD, Poulou LS, Karsaliakos P, Thanos L, Mylonakis E. FDG PET is a robust tool for the diagnosis of spondylodiscitis: a meta-analysis of diagnostic data. Clin Nucl Med 2014 Apr;39(4):330-5.
7. Pigrau C, Almirante B, Flores X, Falco V, Rodríguez D, Gasser I, et al. Spontaneous pyogenic vertebral osteomyelitis and endocarditis: incidence, risk factors and outcome. Am J Med 2005 Nov;118(11):1287.
8. Koslow M, Kuperstein R, Eshed I, Perelman M, Maor E, Sidi Y. The unique clinical features and outcome of infectious endocarditis and vertebral osteomyelitis co-infection. Am J Med 2014 Jul;127(7):669.e9-669.e15.
9. Gupta A, Kowalski TJ, Osmon DR, Enzler M, Steckelberg JM, Huddleston PM et al. Long-term outcome of pyogenic vertebral osteomyelitis: a cohort study of 260 patients. Open Forum Infect Dis. 2014 Dec 5;1(3):ofu107.
10. Bernard L, Dinh A, Ghout I, Simo D, Zeller V, Issartel D et al. Antibiotic treatment for 6 weeks versus 12 weeks in patients with pyogenic vertebral osteomyelitis: an open-label, non-inferiority, randomised, controlled trial. Lancet. 2015. Mar 7;385(9971):875-82.
11. Lora-Tamayo J, Euba G, Narváez JA, Murillo O, Verdaguer R, Sobrino B et al. Changing trends in the epidemiology of pyogenic vertebral osteomyelitis: The impact of cases with no microbiologic diagnosis. Semin Arthritis Rheum. 2011 Oct;41(2):247-55.
12. Chong BSW, Brereton CJ, Gordon A, Davis JS. Epidemiology, Microbiological Diagnosis, and Clinical Outcomes in Pyogenic Vertebral Osteomyelitis: A 10-year Retrospective Cohort Study. [Open Forum Infect Dis](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5846292/). 2018 Mar; 5(3): ofy037.
13. Bhavan KP, Marschall J, Olsen MA, Fraser VJ, Wright NM, Warren DK. The epidemiology of hematogenous vertebral osteomyelitis: a cohort study in a tertiary care hospital. BMC Infect Dis. 2010 Jun 7;10:158.
14. Chang WS, Ho MW, Lin PC, Chen CY, Kao HK, Lin Y et al. Clinical characteristics, treatments, and outcomes of hematogenous pyogenic vertebral osteomyelitis, 12-year experience from a tertiary hospital in central Taiwan. J Microbiol Immunol Infect. 2018 Apr;51(2):235-242.

Acknowledgments: To our partners from the Rheumatology department, the Infectious disease Unit and the Musculoskeletal Unit of the Radiology department.

The authors are grateful for the collaboration with statistical analysis to Mr. Antonio Cañada Martínez, from the Biostatistics department at the Instituto de Investigación Sanitaria La Fe, Valencia, Spain.

No disclosure of interest for any of the authors.