O322
2-hour Oral Session
Still thriving at the host's expense: parasitic infection

Leishmaniasis in a low-endemicity area of northern Italy: a 10 years retrospective study

Paola Tatarelli*[1], Giacomo Fornaro[1], Valerio Del Bono[1], Giovanni Mazzarello[1], Fabio Guolo[2], Livia Giannoni[2], Anna Maria Raiola[2], Marco Gobbi[2], Andrea Bacigalupo[2], Malgorzata Mikulska[3], Claudio Viscoli[1]

[1]*Irccs San Martino-Ist, Infectious Diseases, Genova, Italy*

[2]*Irccs San Martino-Ist, Division of Clinical Hematology and Division of Hematology and Hematopoietic Stem Cell Transplantation, Genova, Italy*

[3]*Irccs San Martino-Ist, Infectious Diseases, Department of Health Sciences, Genova, Italy*

Background: Leishmaniasis is a complex of vector-borne diseases caused by protozoa of the genus *Leishmania*. It is endemic in some regions of South Europe and its diagnosis and management may be a challenge in areas of relatively low incidence.

Material/methods: Retrospective observational study of all consecutive adult patients admitted to IRRCS San Martino-IST, Genoa, Liguria, Italy, for cutaneous (CL), muco-cutaneous (MCL) or visceral leishmaniasis (VL) between November 2004 and March 2014 has been performed.

Results: Thirty-three patients were identified: 19 (58%; 13 male, 6 female) had VL, 11 (33%; 7 male, 4 female) CL and 3 (9%; 1 male, 2 female) had MCL. The median age at admission was 53 years (range: 15-84) for VL, 63 (29-80) for CL and 73 (44-78) for MCL. Twenty-eight patients were from Liguria, while five were from other Italian regions; 32 (97%) were of Italian origin.
Of the latter, 5 patients (56%) had a hematological malignancy; 4 (40%) were under immunosuppressive therapy (because of a rheumatological disease in 3 cases and myasthenia gravis in one) and 1 (11%) had HIV infection. All cases but one were a first VL episode.
Clinical presentation at the admission was as follows: fever in 12 (63%); hepato-splenomegaly in 10 (53%) and splenomegaly without hepatomegaly in 4 (21%). Blood tests showed leukopenia in 15/18 patients (83%); anaemia in 15/18 (83%); thrombocytopenia in 11/18 (61%); pancytopenia 8/18 (44%) and hypergammaglobulinemia in 15/16 (97%). Figure 1 shows how the typical clinical-laboratory features of VL were associated, in 16 patients.
Diagnosis was made with microscopic examination of bone marrow samples in 15/17 (88%), serum PCR in 1 and based on clinical data only in 1 patient with a previous episode of documented leishmaniasis. Serology was positive in 9/13 patients (69%). Polymerase chain reaction (PCR) was performed in 5 patients (3 in blood and 2 in bone marrow) and was positive in all cases.
Fifteen patients (80%) were treated with liposomal amphotericin B; 1 (5%) with amphotericin B lipid complex, 1 (5%) with miltefosine; while 1 did not receive treatment and for 1 data is missing. All 17 patients who received treatment were cured, 1 died because of leishmaniasis before starting treatment and 1 was lost to follow-up. Two patients (12%), both with multiple myeloma, experienced recurrence of VL, after 359 and 446 days from the first episode.

Conclusions: Italy is a country with endemic cases of VL. It affects mainly middle-aged, immunocompromised patients and might present without fever in up to 40% cases. Hypergammaglobulinemia is the predominant laboratory feature. Both microscopic examination of bone-marrow samples and molecular assays resulted highly sensitive. Excellent response to treatment

was observed but recurrences are possible, particularly in patients with haematological malignancies. Molecular tools should be implemented.