Editorial

Introducing Mediterranean Journal of Hematology and Infectious Diseases

^Giuseppe Leone, *Luigi Maria Larocca and °Eligio Pizzigallo

^Istituto di Ematologia,* Istituto di Anatomia Patologica, Università Cattolica del Sacro Cuore, Roma.
°Clinica delle Malattie Infettive, Università di Chieti. Italy

Correspondence: Giuseppe Leone, Istituto di Ematologia, Università Cattolica del Sacro Cuore, Policlinico A. Gemelli, Largo Gemelli 8, 00168 Roma, Italy. e-mail: gleone@rm.unicatt.it

Published: June 17, 2009
Received: June 16, 2009
Accepted: June 17, 2009

Medit J Hemat Infect Dis 2009; 1(1):e2009001 DOI 10.4084/MJHID.2009.001
This article is available from: http://www.mjhid.org/article/view/4408

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/2.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited

Summary: Mediterranean Journal of Hematology and Infectious Diseases (MJHID) is a new open access, peer-reviewed, online journal, which encompasses different aspects of clinical and translational research providing an insight into the relationship between acute and chronic infections and hematological diseases. MJHID will be a topical journal on subjects of current importance in clinical haematology and infectious diseases. Every issue should have, beside the editor in chief, a guest editor. Both editor in chief and guest editor provide to invite experts in the selected topic to perform a complete update of the arguments readily available for practising physicians. The journal will have also a section devoted to original papers, case reports and letters to editor and Editorial comment mostly focusing on the arguments treated in the previous topical issues.

Reciprocal interdependence between infectious and haematologic diseases (malignant and non-malignant) is well known.1,2,3,4 Parasitosis as Malaria, Leishmaniosis, Hookworms and Teniasis infect about a billion people in the world5,6 and manifest prevalently with anaemia,7,8 so that they are diagnosed mostly by experienced haematologists on blood or bone marrow smear.9 Malaria has been of prominent importance in the diffusion of thalassemia and related disorders in Mediterranean countries and in the rest of the world.10 On the other hand, infections are also the main problem in patients affected by hematological malignancies.11-15 Granulocytopenia, due to bone marrow infiltration or to radio-chemotherapy is the main factor favouring bacterial and fungal infections16-18 and immunodeficiency, frequent in lymphoproliferative diseases, favours viral, protozoal as well as fungal infections.19,22 Furthermore, most of the drug utilized to eradicate malignant clones23-24 have as a side effect immunosuppression, which, on the other hand, is requested to reduce immunological competence in autoimmune blood diseases and to reduce GVH and rejection in Hemopoietic Stem Cell Transplantation.25,27 Splenectomy frequently performed autoimmune diseases as well in lymphoproliferative diseases is a further cause of immunodeficiency.28 Nevertheless, the main cause of immunodeficiency at present is due to HIV infection in developed as well in developing countries.29 The blood is the main vector of HIV infection, which become manifest with symptoms related to reduction of T lymphocytes30-35 and consequent bacterial, viral and fungal and protozoal infections.36-38 In turn, infections and immunosuppression favours malignancies especially of lymphoid tissue in HIV patients39,45 and, even if
in a lower proportion in non HIV. Worldwide 15 to 20% of cancers are linked to infectious diseases. In developed Western Countries approximately 10% of all cancers are linked to infectious agents, but they account for as much as 20% of all cancers in developing countries. It is noteworthy that the first infection driven neoplasia, the bladder cancer, was recognized in egyptian farmers affected by schistosomiasis. Most of malignancies associated with infections and/or immunosuppression are hematological. Causative relationship between Epstein-Barr virus infection, virus C hepatitis, HIV, Herpes Virus, helicobacter pylori and B lymphoproliferative diseases are well known furthermore association between human T-lymphotropic viruses and adult T-cell leukemias and lymphomas are frequent in in endemic areas. Endemic chronic infections are more frequent in developing countries and probably justify the major frequency of cancers linked to infections in these countries. Although the european and afro-middle oriental mediterranean countries are heterogeneous in life style, income, average life and public health system, and include both developed and developing countries they share epidemiological characteristics and public health problems. It is evident the interest of Mediterranean European countries to increase the research in the infectious diseases of Mediterranean basin not only for humanitarian reasons but also for their specific interests. Pathogens can spread far from where they first developed due to increases in trade, international tourism and climate change. It is noteworthy that the infections in developing countries are considered a priority in the research program of European Community. Neglected diseases are a major problem of present medicine. It is now commonly admitted that the so-called (most) neglected tropical diseases have been given little attention. According to World Health Organization, neglected diseases are hidden diseases. On a global scale, neglected infectious diseases (NID) are responsible for an estimated 500 000 deaths and millions of disabilities each year. They affect almost exclusively extremely poor populations living in remote areas beyond the reach of health service. Moreover, due to the fact that 90% of cases occur in the low income countries, investment in research on these diseases has been utterly inadequate. Investing for discover new drugs for these diseases is thought to be not marketable or profitable. However, there is an increasing awareness of this gap, which has been highlighted in a recent report on major and neglected diseases in developing countries prepared by MEP John Bowis and adopted by the European Parliament in 2005.

Urgent pragmatic and efficient measures are needed both at international and national levels. Most of the peoples affected by neglected infectious diseases live in Central Africa, South Asia and, however Mediterranean basin represent from epidemiological point of view an exclusive cross road of Asian, African and European infectious diseases. Most of neglected infectious diseases are present in Mediterranean basin and their eradication in this area could represent a tremendous incentive to reduce their presence in the rest of the word.

This should be possible bridging the health system gap between the south and the north borders sides of Mediterranean Sea while improving scientific collaboration.

Case report should have educational character. Clinical trials of hematologic and infectious diseases present of Mediterranean area will have their natural home in this Journal. Also case studies relative to important health care intervention in developing countries of south Mediterranean areas will be accepted. All that should contribute to disseminate updated informations among physicians of developing countries on the more frequent diseases of the Mediterranean area.

The results of relevant studies in the field should be made available to scientists and clinicians, in particular those in developing countries where the fight against pathogen related cancers is of the utmost importance.

Every accepted manuscript will be available for reading on its date of acceptance by any person who has access to the web in web-friendly XML. Considering that every issue will be devoted to a topic, when all articles of the same topic will be available they will be formatted and the typeset PDF version will be available. The first issue of the MJHID has been dedicated to “Update in Diagnosis and Treatment of Thalassemia and related Disorders” Guest Editor Prof. Maria Domenica Cappellini.

References
1. zur Hausen H Infections causing human cancers, Wiley-VCH, Verlag 2006, Pag. 28-30.
2. Weatherall DJ. Common genetic disorders of the red cell and the 'malaria hypothesis'. Ann Trop Med Parasitol. 1987;81:539-48.
3. Liebman HA. Viral-associated immune thrombocytopenic purpura. Hematology Am Soc Hematol Educ Program. 2008;212-8.
4. Stasi R, Provan D. Helicobacter pylori and Chronic ITP. Hematology Am Soc Hematol Educ Program. 2008;206-11.
5. Hotez PJ, Fenwick A, Savioli L, Molyneux DH. Rescuing the bottom billion through control of neglected tropical diseases. Lancet. 2009;373:1570-5
Blevins SM, Greenfield RA, Bronze MS. Blood smear analysis. 

Awasthi S, Bundy D. Intestinal nematode infection and anaemia in developing countries. BMJ. 2007;334:1063-6.

Bates I, McKew S, Sarkinfada F. Anaemia: a useful indicator of neonatal disease burden and control. PLoS Med. 2007;4:e231.

Pneumocystis carinii pneumonia in patients with cancer: an increasing incidence. Cancer 1993;71:481-485.

Morrison VA. Management of infectious complications in patients with chronic lymphocytic leukemia. Hematology Am Soc Hematol Educ Program. 2007;2007:332-8.

Meunier F, Lukac C. The First European Conference on Infections in Leukaemia - ECIL-1: a current perspective. Eur J Cancer. 2008;44:21-7. Epub 2008

Bodey, G.P., Buckley, M., Sathe, Y.S.&Freireich, E.J. Quantitative relationships between circulating leukocytes and infection in patients with acute leukemia. Annals of Internal Medicine, 1966;64:328-340.

Ellis M. Febrile neutropenia. Ann N Y Acad Sci. 2008;1138:329-50. Review.

Wade JC. Viral infections in patients with hematological malignancies. Hematology Am Soc Hematol Educ Program. 2006:368-74.

Azia JA, Sissons JG, Riddell S, Diamond DJ, Willis MR, Carmichael AJ, Weeke MS, Gandhi M, La Rosa C, Villacres M, Lacey S, Markel S, Sun J. Sun J. Status of Cytomegalovirus Prevention and Treatment in 2000. Hematology Am Soc Hematol Educ Program. 2000:339-355.

Bow EJ. Of yeasts and hyphae: a hematologist's approach to antifungal therapy. Hematology Am Soc Hematol Educ Program. 2006:361-7.

Pagano L, Fianchi L, Leone G. Fungal pneumonia due to molds in patients with hematological malignancies. J Chemother. 2006;18:339-52.

Russian DA, Levine SJ. Pneumocystis carinii pneumonia in patients without HIV infection. Am J Med. Sci. 2001;32:56-65.

Booysen LR. Infectious complications associated with immunomodulating monoclonal antibodies used in the treatment of hematologic malignancy. J Natl Compr Canc Netw. 2006;8:202-13

Samonis G, Kontoyiannis DP. Infectious diseases of purine analog therapy. Curr Opin Infect Dis. 2001;14:409-13.

Sable CA, Donowitz GR. Infections in bone marrow transplant recipients. Curr Infect Dis. 1994;18:273-84.

Sullivan KM, Dykewicz CA, Longworth DL, Bovech M, Baden LH, Rubino RH, Sepkowitz KA. Preventing opportunistic infections after hematopoietic stem cell transplantation: the Centers for Disease Control and Prevention, Infectious Diseases Society of America, and American Society for Blood and Marrow Transplantation Practice Guidelines and beyond. Hematology Am Soc Hematol Educ Program. 2001:392-421.

Grigg A, Slavin M. Minimizing the risk of recurrent or progressive invasive mold infections during stem cell transplantation or further intensive chemotherapy. Transplant Infect Dis. 2008;10:3-12.

Sumaraju V, Smith LG, Smith SM. Infectious complications in asplenic hosts. Infect Dis Clin North Am. 2001;15:551-65.

Cohen MS, Hellmann N, Levy JA, De Cock K, Lange J. The spread, treatment, and prevention of HIV-1: evolution of a global pandemic. J Clin Invest. 2008;118:1244-54.

Gallo RC, Montagnier L. AIDS in 1988. Sci Am. 1988;259:41-8.

Montagnier L. Origin and evolution of HIVs and their role in AIDS pathogenesis. J Acquir Immune Defic Syndr. 1988;1:517-20.

Levine AM, Scadden DT, Ziaia KA, Krishnan A. Hematologic Aspects of HIV/AIDS. Hematology Am Soc Hematol Educ Program. 2001:463-78.

Snyder EL, Dodd RY. Reducing the risk of blood transfusion. Hematology Am Soc Hematol Educ Program. 2001:433-42. Review.

Stebbing J, Gazzard B, Douek DC. Where does HIV live? N Engl J Med. 2004;350:1872-80.

Alexaki A, Wijgahn D. HIV-1 infection of bone marrow hematopoietic progenitor cells and their role in trafficking and viral dissemination. PLoS Pathog. 2008;4:e1000215. Epub 2008

Ho DD, Pomerantz RJ, Kaplan JC. Pathogenesis of infection with human immunodeficiency virus. N Engl J Med. 1987;317:278-86.

Yarchoan R, Broder S. Development of antiretroviral therapy for the acquired immunodeficiency syndrome and related disorders. A progress report. N Engl J Med. 1987;316:557-64.

Thomas CF Jr, Limper AH. Pneumocystis pneumonia. N Engl J Med. 2004;350:2487-98.

Boshoff C, Weiss R. AIDS-related malignancies. Nat Rev Cancer. 2002;2:373-82.

Spano JP, Costagliola D, Katlama C, Mounier N, Oksenhendler E, Khayat D. AIDS-related malignancies: state of the art and therapeutic challenges. J Clin Oncol. 2008;26:4834-42.

Fassone L, Cingolani A, Martini M, Migliaretti G, Oreste PL, Capello D, Gloghini A, Vivenda D, Dolcetti R, Carbone A, Antinori A, Gaidano G, Larocca LM. Characterization of Epstein-Barr virus genotypes in AIDS-related non-Hodgkin's lymphoma. AIDS Res Hum Retroviruses. 2002;18:19-26.

Cingolani A, Gastaldi R, Fassone L, Pierconti F, Giancola ML, Martini M, DeLuca A, Ammassari A, Mazzone C, Pescarmona E, Gaidano G, Larocca LM. Epstein-Barr virus infection is predictive of CNS involvement in systemic AIDS-related non-Hodgkin's lymphomas. J Clin Oncol. 2000;18:3325-30.

Grogg KL, Miller RF, Dogan A. HIV infection and lymphoma. J Clin Pathol. 2007;60:1365-72.

Carbone A, Cesarman E, Spina M, Gloghini A, Schulz TF. HIV-associated lymphomas and gamma-herpesviruses. Blood. 2009;113:1213-24.

Sabe I, Mangoud AM, Elalfy Y, Elsayed M, Shaban W, Hafez AO, El Sherbini GT, Morsy AT. New concept of schistosomiasis lesions of urinary bladder versus development of bladder cancer. J Egypt Soc Parasitol. 2008;38:85-102.

Wotherspoon AC. A critical review of the effect of Helicobacter pylori eradication on gastric MALT lymphoma. Curr Gastroenterol Rep. 2000;2:494-8.

Harrington DS, Weisenburger DD, Partlow DT. Epstein-Barr virus—associated lymphoproliferative lesions. Clin Lab Med. 2004;350:1872-80.

Stebbing J, Gazzard B, Douek DC. Where does HIV live? N Engl J Med. 2004;350:1872-80.

Kelly GL, Rickinson AB. Burkitt lymphoma: revisiting the role of Epstein-Barr virus—associated lymphomas and gamma-herpesviruses. Clin Lab Med. 2004;350:1872-80.

Boshoff C, Weiss R. AIDS-related malignancies. Nat Rev Cancer. 2002;2:373-82.

Spano JP, Costagliola D, Katlama C, Mounier N, Oksenhendler E, Khayat D. AIDS-related malignancies: state of the art and therapeutic challenges. J Clin Oncol. 2008;26:4834-42.

Fassone L, Cingolani A, Martini M, Migliaretti G, Oreste PL, Capello D, Gloghini A, Vivenda D, Dolcetti R, Carbone A, Antinori A, Gaidano G, Larocca LM. Characterization of Epstein-Barr virus genotypes in AIDS-related non-Hodgkin's lymphoma. AIDS Res Hum Retroviruses. 2002;18:19-26.

Cingolani A, Gastaldi R, Fassone L, Pierconti F, Giancola ML, Martini M, DeLuca A, Ammassari A, Mazzone C, Pescarmona E, Gaidano G, Larocca LM. Characterization of Epstein-Barr virus genotypes in AIDS-related non-Hodgkin's lymphoma. AIDS Res Hum Retroviruses. 2002;18:19-26.

Carbone A, Cesarman E, Spina M, Gloghini A, Schulz TF. HIV-associated lymphomas and gamma-herpesviruses. Blood. 2009;113:1213-24.

Sabe I, Mangoud AM, Elalfy Y, Elsayed M, Shaaban W, Hafez AO, El Sherbini GT, Morsy AT. New concept of schistosomiasis lesions of urinary bladder versus development of bladder cancer. J Egypt Soc Parasitol. 2008;38:85-102.

Wotherspoon AC. A critical review of the effect of Helicobacter pylori eradication on gastric MALT lymphoma. Curr Gastroenterol Rep. 2000;2:494-8.

Harrington DS, Weisenburger DD, Partlow DT. Epstein-Barr virus—associated lymphoproliferative lesions. Clin Lab Med. 2004;350:1872-80.

Stebbing J, Gazzard B, Douek DC. Where does HIV live? N Engl J Med. 2004;350:1872-80.
54. Du MQ, Bacon CM, Isaacson PG. Kaposi sarcoma-associated herpesvirus/human herpesvirus 8 and lymphoproliferative disorders. J Clin Pathol. 2007;60:1350-7.
55. Firpi RJ, Nelson DR. Viral hepatitis: manifestations and management strategy Hematology Am Soc Hematol Educ Program. 2006:375-80.
56. Cavalli F, Isaacson PG, Gascoyne RD, Zucca E. MALT Lymphomas. Hematology Am Soc Hematol Educ Program. 2001:241-58.
57. Proietti FA, Carneiro-Proietti AB, Catalan-Soares BC, Murphy EL. Global epidemiology of HTLV-I infection and associated diseases. Oncogene. 2005;2:6058-68.
58. Verdonck K, González E, Van Dooren S, Vandamme AM, Vanham G, Gotuzzo E. Human T-lymphotropic virus 1: recent knowledge about an ancient infection. Lancet Infect Dis. 2007;7:266-81.
59. Dente MG, Fabiani M, Gnesotto R, Putoto G, Montagna C, Simon-Soria F, Martinde Pando C, Barboza P, Ait-Belghiti F, Kojouharova M, Vladimirrova N, Vorou R, Mellou K, Thinus G, Declish S, EpiSouth Network. EpiSouth: a network for communicable disease control in the Mediterranean region and the Balkans. EuroSurveill. 2009;14. pii: 19113.
60. Alvar J, Aparicio P, Aseffa A, Den Boer M, Cahuavate C, Dedet JP, Gradoni L, Ter Horst R, López-Vélez R, Moreno J. The relationship between leishmaniasis and AIDS: the second 10 years. Clin Microbiol Rev. 2008;21:334-59.
61. Esteban JL, Saulea S, Quer J. The changing epidemiology of hepatitis C virus infection in Europe. J Hepatol. 2008;48:148-62.
62. Farina C, Rizzi M, Ricci L, Gabbi E, Caligaris S, Goglio A. Imported and autochthonous histoplasmosis in Italy: new cases and old problems. Rev Iberoam Micol. 2005;22:169-71.
63. Dasgupta K, Menzies D. Cost-effectiveness of tuberculosis control strategies among immigrants and refugees. Eur Respir J. 2005;25:1107-12.
64. McLean RG, Ubico SR, Bourne D, Komar N. West Nile virus in livestock and wildlife. Curr Top Microbiol Immunol. 2002;267:271-308.
65. Editorial: Editorial Neglected diseases, neglected technologies, neglected patients. International Journal of Pharmaceutics 2008;35