EXPERIENCE ON THE MANAGEMENT OF MALIGNANCY IN HEMOPHILIC PATIENTS.

VILLAÇA, P.R.; OKAZAKI, E.; ZEINAD-VALIM, A.K.; SANDOVAL, E.P.N.; CARNEIRO, J.D.A.; JUNQUEIRA, P.L.[1]; CHAMONE, D. A. F.; D'AMICO, E. A.

Serviço de Hematologia – Hospital of Clinics - Faculty of Medicine – University of São Paulo;
[1]Cancer Institut of the State of São Paulo - University of Sao Paulo, Brazil.

Introduction

Advances in hemophilia care, including safer blood products and more effective treatments for human immunodeficiency virus (HIV) and hepatitis C infection (HCV), have improved the life expectancy of people with hemophilia (PWH). At least in more developed countries, it is approaching that of the general population. Therefore, age-related diseases, such as lifestyle disorders, cardiovascular diseases and cancer, have been increasingly recognized in PWH. Physicians working in hemophilia centers now face a new challenge: the management of cancer in people with inherited hemorrhagic disorders. Indeed, the congenital bleeding tendency may influence the cancer in different ways, by interfering with its clinical presentation, diagnosis and treatment.

We describe five cases of cancer in PWH, focusing in their management and adverse events during cancer treatment.

Patients

All patients followed at a national reference Hemophilia and Cancer treatment Center were evaluated between August 2009 and December 2011 and data pertaining to five hemophiliacs with cancer were retrospectively collected.

Results

Data regarding diagnosis and cancer details are displayed in **Table 1**. Bleeding was the first symptom of cancer in patients 2, 4 and 5. Patient 2 presented hematuria since the admission related to urinary bladder metastasis associated with severe refractory thrombocytopenia. All patients received factor replacement during cancer treatment, invasive and surgical procedures. There was no hemorrhagic complication. Patient 4 received antithrombotic prophylaxis after surgery, due to associated obesity. All patients were HIV negative and only patient 2 was HCV positive (with no response after treatment).

***Table 1**: Patients characteristics*

Patient	*Haemophilia type*	*Type of malignancy*	*Age at diagnosis*	*HIV / HCV*	*Treatment*	*Outcome*
1	HB (2%)	Medulloblastoma	19 yo	- / -	Surgery, xCT, xRT	Remission
2	HB (2%)	Adenocarcinoma of colon	57 yo	- / +	xCT	Death (disease progression)
3	HA (<1%)	Ewing sarcoma	15 yo	- / -	Surgery, xCT	On treatment
4	HA (8%)	Liposarcoma (thigh)	34 yo	- / -	Surgery, xRT	Completely resected / remission
5	HB (7%)	Nasopharyngeal carcinoma	58 yo	- / -	Surgery, xCT	Completely resected / remission

xCT= chemotherapy; xRT= radiotherapy

Discussion and Conclusions

Overall the prevalence of most cancers in the non-infected PWH seems to be similar to that of age matched controls. The management of such patients represents a new challenge for physicians working in hemophilia centers.

Bleeding episode may reveal an underlying oncologic disorder. Sixty percent of our patients had bleeding as the first manifestation of cancer disease. On the other hand, it should be taken in account the hemophilia-associated increased bleeding risk, mainly during chemotherapy (xCT), radiotherapy (xRT) program, diagnostic invasive procedure or cancer treatment. Eighty percent of our patients were submitted to surgical procedure under adequate replacement therapy, without hemorrhagic and/or thrombotic complications (one patient received pharmacological antithrombotic prophylaxis).

Diagnosis of hemophilia should not preclude the adequate diagnosis and cancer treatment. In the absence of clinical trials and any evidence-based guidelines to guide the approach to management symptomatic patients should be evaluated accordingly. Prospective trials are warranted to optimize the management of hemophiliacs with cancer.

REFERENCES:

- Astermark J, Makris M, Mauser-Bunschoten E, Nemes L, D'oiron R, Oldenburg J, Ingerslev J; The Malignancy in Haemophilia Workshop Group. Malignant disease in the haemophilic population: moving towards a management consensus? *Haemophilia.* 2012 May 28. doi: 10.1111/j.1365-2516.2012.02846.x. [Epub ahead of print]
- Dunn AL, Austin H, Michael Soucie J. Prevalence of malignancies among U.S. male patients with haemophilia a review of the Haemophilia Surveillance System. *Haemophilia.* 2012 Jan 8. doi: 10.1111/j.1365-2516.2011.02731.x. [Epub ahead of print]
- M Tagliaferri A, Di Perna C, Santoro C, Schinco P, Santoro R, Rossetti G, Coppola A, Morfini M, Franchini M; Italian Association of Hemophilia Centers. Cancers in patients with hemophilia: a retrospective study from the Italian Association of Hemophilia Centers. *J Thromb Haemost.* 2012 Jan;10(1):90-5.
- Dunn AL. Malignancy in patients with haemophilia: a review of the literature. *Haemophilia.* 2010 May;16(3):427-36.
- Franchini M, Lippi G, Montagnana M, Targher G, Zaffanello M, Salvagno GL, Rivolta GF, Perna CD, Tagliaferri A. Hemophilia and cancer: a new challenge for hemophilia centers. *Cancer Treat Rev.* 2009 Jun;35(4):374-7.
- Philipp C. The aging patient with hemophilia: complications, comorbidities, and management issues. *Hematology Am Soc Hematol Educ Program.* 2010;2010:191-6.

DOI: 10.3252/pso.eu.WFH2012.2012