Journal of Thrombosis and Circulation Open Access

Lai-Tiong, J Thrombo Cir 2016, 2:2
DOI: 10.4172/2572-9462.1000110

Short Communication Open Access

Thrombosis and Cancer: About the Experience of a French Cancer Center

Florence Lai-Tiong*

Institut De Cancerologie Du Gard, Rue du Professeur Henri Pujol, Nîmes Cédex 9, 30900, France

Abstract

Cancers and their treatments are risk factors for venous thromboembolism. The absolute risk depends on the tumor type, the stage, treatments with anti neoplasic agents. We report the results our retrospective study conducted in 2012, in our cancer center in France. The objectives were to describe the characteristics of patients diagnosed with venous thromboembolism. A total of 41 patients were enrolled: 26 women and 15 men. Median age was 61,6 years. Patients had genito-urinary malignancies for 13 of them, 13 had gynecological cancers, 4 gastro-intestinal cancers, 4 pulmonary or head and neck cancers. Patients were at metastatic stage in 29 cases and 38 received chemotherapy. For 15 patients, thrombosis was revealed by oedema and 10 patients had no symptoms. Pulmonary embolism was diagnosed in 13 patients. More research are needed to estimate the risk of thromboembolic disease in cancer patients and better understand interactions between cancer and blood coagulation, and subsequently to improve the management of the disease.

Keywords: Thrombosis; Cancer; Chemotherapy; Venous thromboembolism

Introduction

Venous thromboembolism is a common complication of malignant disease that represents one of the most cause of morbidity and mortality in cancer patients [1]. The association between cancer and thrombosis is now well established and was first described in 1865 by Armand Trousseau. Nevertheless the physiopathology is still poorly understood. Venous thromboembolism is a multifactorial event; absolute risk depends on several factors including tumor type, stage of disease, administration of chemotherapy and or hormonal therapy, surgical interventions, length of anesthesia, the presence of an indwelling central venous catheter, age, immobilization and history of venous thromboembolism. One of the most important factors is the use of cytotoxic drugs. In the literature, the risk of pulmonary embolism is higher and risk of recurrence is higher in cancer patients than patients without cancers. The study aimed to determine the characteristics of the patients with venous thromboembolism episode.

Methods

We conducted an observational retrospective monocentric study, in our cancer center in France. All cancer patients aged over than 18 years were enrolled, from February to December 2012. They should suffer from thromboembolic event, documented by Computed Tomography scan or doppler ultrasonography. Demographic and carcinologic data, circumstances of revelation were recorded. Patients treated with anticoagulant therapy without any radiologic documentation were excluded. Statistical analysis were made by SAS 9.1 logiciel.

Results

A total of 41 patients were enrolled in the study: 26 women (63.5%) and 15 men (36.5%). They were all aged over 18 years. The median age of the population was 61-66 years. All patients had solid tumor. Twenty nine (29) (70.7%) patients were at metastatic stage (Figure 1). Thirteen (13) (31.7%) patients were treated for genito-urinary cancer and 13 (31.7%) patients for gynecological cancers, 7 patients (17%) had breast cancers, 4 (9.8%) had gastro-intestinal malignancies and 4 (9.8%) cervical or pulmonary cancers. 38 patients were treated by chemotherapy while 3 by targeted therapy. 1 patient did not receive any specific treatment (Table 1). Most of patients presented with oedema: 15 patients (36.5%). Few of them had pain: 8 (19.5%). 10 patients (24.3%) were diagnosed incidentally, without any symptoms. Thirteen (13) (31.7%) patients were diagnosed with pulmonary embolism. Five (5) (12.1%) patients had an indwelling central catheter-related thrombosis. The catheter was not removed for those patients because functional and according guidelines of the center. All patients were treated for their thromboembolic event by low-molecular-weight heparin.

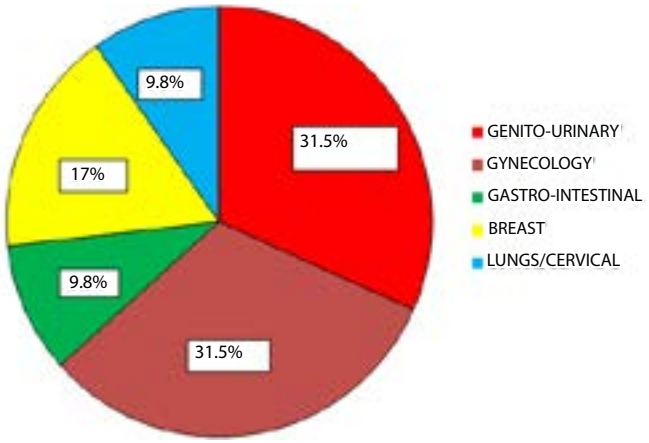

Figure 1: Repartition of the cancers.

Discussion

Cancer and its treatments are well recognized to increase the risk of thromboembolic events. The absolute risk depends on the tumor type,

***Corresponding author:** Florence Lai-Tiong, Institut De Cancerologie Du Gard, Rue du Professeur Henri Pujol, Nîmes Cédex 9, 30900, France, Tel: 0685973306: E-mail: florencelt@hotmail.fr

Received April 26, 2016; **Accepted** June 13, 2016; **Published** June 20, 2016

Citation: Lai-Tiong F (2016) Thrombosis and Cancer: About the Experience of a French Cancer Center. J Thrombo Cir 2: 110. doi: 10.4172/2572-9462.1000110

Sex	Women	Men	Total
N; Percentage (%)	26; 63.5	15; 36.5	41; 100
Age	Median Age		
Years	61		
Treatment	Chemotherapy	Tyrosin kinase inhibitor	No treatment
N	38	3	1
Metastatic stage N; Percentage (%)		29; 70.7	

Table 1: Population's characteristics.

the stage of the cancer, and antineopolastic agents. Thrombotic events are the second leading cause of death in cancer patients after death from cancer itself.

Patients with malignancy are in a hypercoagulable state, that is part of the physiopathology. In our study most of patients had advanced-stage disease. We had no hematologic malignancies because our center did not treat that type of cancers. Our study, even if a small, retrospective and monocentric it underlies that it is a prevalent problem. Despite the burden of venous thromboembolism, there has been limited advancement in the management of thrombosis in cancer patients. The standard treatment consist in low-molecular-weight heparin for long term. Vitamin K antagonists are less effective in those patients, with rates of recurrent venous thromboembolism threefold higher [2]. Incidental or unexpected venous thromboembolism is defined as evidence of thrombosis detected on imaging studies performed for other indications. Retrospective studies have demonstrated incidental venous thromboembolism rates of up to 6% [3]. This rate is higher in our study-population. According to the literature, incidental venous thromboembolism can have negative impact on clinical outcomes [4]. Anticoagulation, even if indicated remains controversial. The benefits appear in two retrospective studies with lungs and pancreatic cancers [5]. In ambulatory patients receiving palliative chemotherapy for locally advanced or metastatic disease, extensive, routine prophylaxis is not recommended, but may be considered in high-risk patients. In patients with an indwelling central venous catheter, extensive, routine thromboprophylaxis is not recommended to prevent central venous catheter-related venous thromboembolism.

Conclusions

With the increasing age and cancer prevalence, and because of the thrombogenicity of the chemotherapeutic agents, physicians should be aware about detection of cancer-associated thrombosis, that remains a leading cause of death

References

1. Lee AY, Levine MN (2003) Venous thromboembolism and cancer: risks and outcomes. Circulation 107: 117-121.
2. Prandoni P, Lensing AW, Piccioli A, Bernardi E, Simioni P, et al. (2002) Reccurent venous thromboembolism and bleeding complications during anticoagulant treatment in patients with cancer and venous thrombosis. Blood 100: 3084-3088.
3. Douma RA, Kok MG, Verberne LM, Kamphuisen PW, Büller HR (2010) Incidental venous thromboembolism in cancer patients: prevalence and consequence. Thromb Res 125: e306-e309.
4. O'Connell CL, Boswell WD, Duddalwar V, Caton A, Mark LS, et al. (2006) Unsuspected pulmonary emboli in cancer patients: clinical correlates and relevance. J Clin Oncol 24: 4928-4932.
5. Sun JM, Kim TS, Lee J, Park YH, Ahn JS, et al. (2010) Unsuspected pulmonary emboli in lung cancer patients: the impact on survival and the significance of anticoagulation therapy. Lung cancer 69: 330-336.