Incidence of thromboembolic disease in a cohort of patients with sarcoma

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INTRODUCTION

Thromboembolic disease (TD) is a frequent complication in cancer patients. However, the real incidence in patients with sarcoma is unknown. The aim of this study is to analyze the incidence of cancer-associated thrombosis in a cohort of ambulatory patients with sarcomas.

METHODS

We performed a retrospective review of patients with sarcoma attended in the Medical Oncology Department of 6 hospitals from the network of Cancer & Thrombosis Working Group of the Spanish Society of Medical Oncology (SEOM). Between January 2012 and December 2016, 219 patients were identified and included in the analysis.

Tabla 1. Patients characteristics

	All patients (n=219)
Median age (range)	50 (15-93)
Sex	
- Male —no. (%)	112 (51.1%)
- Female —no. (%)	107 (48.9%)
Race	
- Caucasian —no. (%)	205 (93.6%)
- Hispanic —no. (%)	12 (5.5%)
- Black —no. (%)	1 (0.5%)
- Asian —no. (%)	1 (0.5%)
Histology	
- GIST —no. (%)	17 (7.8%)
- Osteosarcoma —no. (%)	20 (9.1%)
- Chondrosarcoma —no. (%)	4 (1.8%)
- Ewing sarcoma or PNET —no. (%)	20 (9.1%)
- Soft tissue sarcoma —no. (%)	158 (72.1%)
Location	
- Upper limbs —no. (%)	11 (5%)
- Lower limbs —no. (%)	63 (28.8%)
- Trunk —no. (%)	24 (11%)
- Small intestine —no. (%)	10 (4.6%)
- Stomach —no. (%)	6 (2.7%)
- Others —no. (%)	52 (23.7%)
- Unknown —no. (%)	53 (24.2%)
Stage at diagnosis	
- I —no. (%)	35 (16%)
- II —no. (%)	31 (14.2%)
- III —no. (%)	78 (35.6%)
- IV —no. (%)	61 (27.9%)
- Unknown —no. (%)	14 (6.4%)
ECOG	
- 0-1 —no. (%)	189 (86.3%)
- ≥ 2 —no. (%)	21 (9.6%)
- Unknown —no. (%)	9 (4.1%)
Central venous catheter	
- Port-A-Cath —no. (%)	93 (42.5%)
- PICC —no. (%)	35 (16%)

RESULTS

- Patients characteristics (Table 1).
- Median follow-up was 36 months (range 0-338).
- 35 patients (16%) experienced TD (20 lower extremity deep-vein thrombosis (DVT), 2 upper extremity DVT, 3 catheter-associated thrombosis, 7 pulmonary embolism, 1 visceral vein thrombosis, 2 other locations).
- One patient experienced arterial thromboembolism.
- According to histology, the incidence was 11.8% in GIST patients, 15% in osteosarcomas, 5% in Ewing sarcomas or PNET and 18.4% in soft tissue sarcomas.
- None of the patients diagnosed of chondrosarcoma suffered VTE.
- 45.5% of patients were deemed to have incidental thromboembolisms.
- 40% of the events occurred at the time of diagnosis or within the first 6 months.
- Khorana's predictive model (Table 2).
- More than 50% of patient with VTE were considered low-risk based on Khorana score.

CONCLUSIONS

In the present study, the incidence of VTE in patients with sarcomas has been higher than expected. It would be desirable to increase the sample size and confirm this figure.

Tabla 2. Khorana's predictive model

Risk category	All patients n=160	VTE patients n=27
Low (0)	88 (55%)	14 (15,9%)
Intermediate (1-2)	67 (41.9%)	11 (16,4%)
High (≥ 3)	5 (3.1%)	2 (40%)