

Thromboprophylaxis in high-risk oncology patients: is it a safe and effective clinical decision-intervention?

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Background: Cancer Associated Thrombosis (CAT) is a negative prognostic factor for survival during cancer treatment, accounting for 20% of total thrombosis. Attention should be devoted to CAT prophylaxis, since cancer patients are more vulnerable for bleeding and drug-drug interactions.

Methods: HeSMO conducted a prospective observational study (ACT4CAT), to record the clinical practice for thromboprophylaxis in ambulatory patients with high thrombotic active cancer. Patients enrolled after signing informed consent.

Neoplasms	Incidence %	Gender F, %	Age ≥65, %	BMI ≥30, %	Metastatic %	Khorana score ≥2, %	HTAs %
Pancreatic	27.0	41.4	52.1	13.0	76.7	100	90.4
Lung	26.6	22.6	59.0	21.5	88.4	58.3	88.0
Colorectal	10.7	34.7	58.6	6.9	83.0	19.0	96.6
Gastric	6.7	19.4	69.4	13.9	69.7	97.2	83.3
Ovarian	4.8	100	57.7	19.2	76.0	65.4	88.0
Bladder	4.4	17.4	79.2	16.7	72.7	37.5	91.3
Breast	4.3	95.7	21.7	13.0	71.4	13.0	65.2
Prostate	4.1	0.0	90.9	18.2	100	18.2	28.6
Testicular	2.2	0.0	0.0	8.3	0.0	25.0	58.3
Uterine	1.3	100	57.1	71.4	100	71.4	71.4
Renal	1.3	14.3	85.7	57.1	85.7	14.3	71.4
Sarcomas	1.1	50.0	66.7	50.0	66.7	0.0	33.3
Head & neck	0.9	50.0	60.0	0.0	33.3	0.0	100
Cervical	0.9	100	0.0	0.0	80.0	80.0	100
Others	3.7	22.2	35.0	30.0	52.9	0.0	85

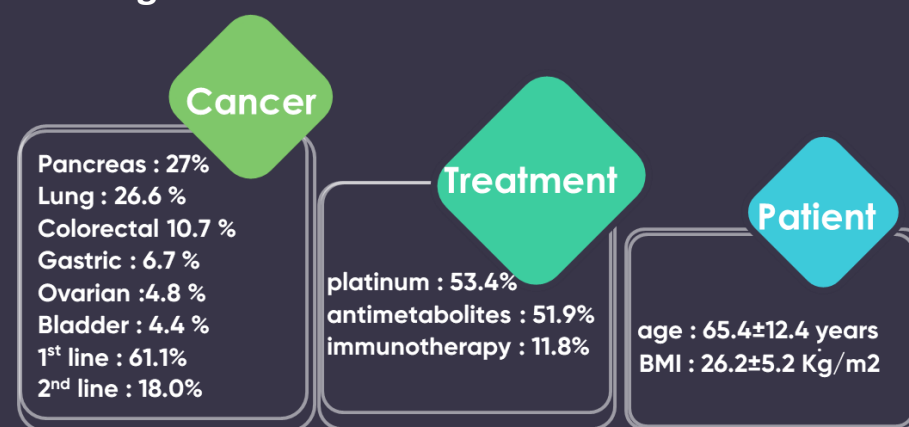
Results: From 19 oncology departments, 628 patients enrolled while 394 (62.7%) completed the study. 541 (86.1%, age: 65.4±12.4 years, BMI: 26.2±5.2 Kg/m²) finished second visit (3-4 cycles of treatment) and their characteristics depicted in table.

78.1% had metastatic disease & 84.5% treated with Highly Thrombogenic Agents (HTAs), such as platinum (53.4%), antimetabolites (51.9%), immunotherapy (11.8%). Notably, 53.8% of these agents had the potential to interact with Direct Oral Anti Coagulants (DOACs). Regarding clinical setting: 61.1% & 18.0% patients were at 1st & 2nd line respectively & 9.2%, 3.1% in adjuvant & neoadjuvant setting. 59.5% had Khorana score ≥2.

Anticoagulation agents administered: 90.7% tinzaparin, 5.2% fondaparinux, 2.% bemiparin, 1.3% enoxaparin & rivaroxaban, apixaban by 0.4%, for 5.5±3.7 months duration. 68.6% of patients received intermediate dose regardless of clinical setting (1st, 2nd, adjuvant & neoadjuvant: 67.5%, 73.9%, 42.2% & 66.7% respectively, p=0.0028).

13 patients (2.4%) experienced thrombotic events. 11 minor bleeding events reported (2.0%).

High Thrombotic burden is related to :



Conclusion: CAT can negatively affect prognosis in patients with active cancer. Apart from Khorana score, high thrombotic risk tumors, metastasis, HTAs, along with bleeding risk and drug-drug interactions, influence the clinical decision for thromboprophylaxis. Intermediate anticoagulation dose as thromboprophylaxis are safe and effective in active cancer.

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