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.

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

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.