

Management and Complications of Upper Extremities Deep Vein Thrombosis in oncohematologic patients: report from our Angiology Unit.

S. Mangiacapra, F. Cannavacciuolo, MG Nunziata, A. Casoria, M. Amitrano

Internal Medicine Ward, A.O.R.N San Giuseppe Moscati, AV

Background

Venous thromboembolism (VTE) is more frequent in cancer patients. It is estimated that the annual incidence of VTE in cancer patients is 0.5% compared to 0.1% in the general population. Treatment of thrombosis is challenging in these patients because of a higher risk of thrombotic recurrence and a higher risk of hemorrhage. Upper extremities' Deep Vein Thrombosis (UEDVT) is less frequent than the Lower Extremities' one. Nevertheless, in the last decades UEDVT incidence has increased, especially in cancer patients, because of the more and more widespread use of central venous catheter (CVC) for chemotherapy. Whereas the diagnostic and therapeutic management of deep vein thrombosis (DVT) of the lower extremities has been well established over the years, less is known about UEDVT.

Materials and methods

After informed consent, Patients with cancer and UEDVT that came to our Angiology Unit were included in our analysis. Collected data included baseline characteristics such as age, sex, smoking, VTE-related variables, such as VTE diagnosis, duration of therapy, hemorrhagic events, rate of venous recanalization, sepsis and CVC infection, and cancer-related variables such as type of cancer, anticancer treatment, presence of CVC.

We collected lab results and body weight to decide type and dosage of therapy. Our study is an observational analysis.

Results

During the study period (December 2021-September 2022) we found 35 patients with diagnosis of UEDVT. The average age at the time of DVT diagnosis was 54 years. Twenty-three (65.7%) were female and 15 (42.8%) were male. They all were affected by active cancer. The most common type of cancer were Lymphoma (40%), breast (31.4%) and colorectal (20%) cancer.

At the time of diagnosis of UEDVT 85.7% of patients was in chemotherapy treatment, 8.6% in hormonal therapy and 5.7% was not doing any cancer treatment. All the patients had CVC. Complications occurred in 48.5% of patients with 31.4% facing more than one complication. Pulmonary Embolism (PE) occurred in 14.3% of patients, Superior Vena Cava Syndrome in 11.4% and Post Thrombotic Syndrome (PTS) in 25.7%. CVC-related sepsis was found in 25.7% of patients. All patients were treated with anticoagulant therapy: 19 (54.3%) with Low molecular Weight Heparin (LMWH), 3 (8.6%) with Fondaparinux, 5 (14.3%) with LMWH and Direct Oral Anticoagulants (DOACs), 2 (5.7%) with Fondaparinux and DOACs, 6 (17.1%) with DOACs only. Treatment was complicated by major bleeding in 2.9%, while minor bleeding occurred in 8.6% of patients. During follow up 11.4% of patients had thrombotic recurrence.

Discussion

UEDVT is more common in cancer patients. Complications such as PE, SVC syndrome and PTS are common and can be present in the same patient. In particular, PTS is more common in CVC related UEDVT than in primary UEDVT, and this is confirmed in our study, where the incidence of PTS was about 25%. This is a complication that can considerably worsen cancer patients' quality of life. In our observation, treatment's complications' rate was low, even with DOACs. In our sample, DOACs represented an effective and safe treatment for UEDVT even in this frail kind of patients.

References

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