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The scale of the problem

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It is generally accepted that patients with active malignancy are prone to develop venous thromboembolic disease. Factors that are thought to contribute to the increased risk of venous thrombosis in these patients, include procoagulant effects of cancer cells themselves or caused by their interaction with the host environment, chemotherapeutic drugs, surgery and immobility.

Thrombosis in cancer surgery

Patients with cancer undergoing major surgery are regarded as carrying the highest risk of post-operative deep vein thrombosis, with a risk of venographically detected thrombosis of approximately 50% in the absence of prophylaxis.[1] Hence, there is a strong recommendations to use anticoagulant prophylaxis in these patients during hospitalisation for surgery, lowering this incidence to approximately 15%.[1] The risk for thrombosis in these patients continues after discharge. A recent trial showed that continued prophylaxis after discharge resulted in fewer venographically diagnosed thrombi at 4 weeks (5% vs 12%).[2] The extremely low number in the prolonged treatment group might lead to the interpretation that continued prophylaxis seem to enable the endogenous fibrinolytic system to dissolve clots.

Thrombosis in non-surgical cancer patients

The incidence of clinical venous thromboembolism in non-surgical cancer patients seems to vary with type of cancer, stage of disease, and the use chemotherapy or hormonal treatment, if applicable. This is best illustrated by the results of studies in patients with breast cancer. In stage I and II breast cancer patients the annual incidence of venous thomboembolism varies from 0.2% in those who do not receive active treatment, 1% those who receive hormonal therapy, 2% in those who receive chemotherapy and 5% in those who receive the combination of chemotherapy and hormonal treatment.[3] The influence of treatment is even more convincing in view of the sudden drop in incidence after cessation of treatment for other reasons than advancing disease.[4] In patients with stage IV breast cancer who received chemotherapy the annual incidence of thrombosis was 8%, reaffirming the importance of stage of disease.[3]

Studies in patients with other types of cancer have mainly focused on the incidence of venous thrombosis during the period of chemotherapeutic treatment. Reported annual incidences vary from 3 to 10%.[3]

Conclusion

Venous thromboembolism is a condition that often complicates the clinical course of patients with cancer. Increased awareness of oncologists and other physicians involved in the management of patients with cancer seems warranted. Ideally, prophylactic measures that are easy to implement and have few side-effects should become available for non-surgical cancer patients.

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