

## **SUPERFICIAL VEIN THROMBOSIS IN MALIGNANCY: AN UNDERESTIMATED PROBLEM**

*P.D. Micco\**

*Internal Medicine and Emergency Room, Department of Medicine, Ospedale Buonconsiglio Fatebenefratelli of Naples, Italy*

Superficial vein thrombosis (SVT) is a common disease but its real incidence has never been assessed again [1]. The association between venous thrombosis and malignancy in fact is known since XIX century [2]. Yet, while the association between venous thromboembolism and malignancy has been focus of several researches and registries in the last years [3], the incidence of SVT has not been focused again. A possible explanation of this trouble may be due to the fact that SVT is usually considered a disease with low incidence of major complication as pulmonary embolism (PE). However, recent studies offer a new point of view on this topic because report an increased rate of pulmonary embolisation in patients suffering of SVT in particular if localised at lower limbs [4].

Risk factors for SVT are similar to those for venous thromboembolism and are divided in transient thrombotic risk factor as recent surgery, prolonged bed rest, administration of pro-thrombotic drugs (e.g. chemotherapy, hormonal drugs and so on, presence of peripheral venous catheter) and in fixed thrombotic risk factors (e.g. chronic disease as malignancy, presence of molecular thrombophilia, previous venous thrombosis in any site, presence of varicose veins of lower limbs) [5].

From an epidemiological point of view malignancy and its therapy is considered the most common risk factor for SVT but also molecular thrombophilia is considered a common risk factor for SVT [6]. Several studies showed an increased incidence of inherited thrombophilia in particular the presence of factor V Leiden and/or hyperhomocysteinemia in patients affected by SVT; acquired molecular pro-thrombotic condition associated to SVT are mainly represented by antiphospholipid syndrome or acquired activated protein C resistance. Few studies focused the association of molecular prothrombotic conditions in oncological patients affected by SVT.

From a pathological point of view we may distinguish SVT localised at lower or upper limb or also at unusual sites of thrombosis; moreover we should differentiate SVT of large venous vessels from SVT of small venous vessels because the possibility of embolisation is different. Another relevant trouble is related to the possibility of detection of SVT of small

venous because the presence of short peripheral venous catheter placed to perform administration of several drugs (fluids, antibiotics, parenteral nutrition, blood derivatives and so on) [7]. In these cases a fine nursing surveillance may be helpful for the identification of a SVT in the site of presence of short peripheral venous catheter because the presence of clinical signs of SVT such as painful and localised area next to the short peripheral venous catheter as the presence of peripheral inflammation as the presence of local palpable cord.

Moreover, from diagnostic point of view another relevant problem is related to the difficulties to perform a SVT diagnosis with objective method after we have identified a suspected area with clinical signs and symptoms. Instrumental test such as ultrasound vascular scan associated with color Doppler flow raise good sensibility and specificity but only for large venous vessels as great saphens and so on while its specificity falls if we consider SVT of small venous vessels.

Finally, for venous thromboembolism due to the presence of deep venous thrombosis we have a clear idea of the intensity and duration of antithrombotic treatment, while treatment and follow up of SVT are still matter of discussion because there are not specific guidelines for the intensity and the duration of antithrombotic treatment and follow up methods are matter of discussion too because clinical surveillance may fail while ultrasound scan is safe only for great venous vessels.

In conclusion, an increased interest should be reserved to the clinical trouble of SVT because several topics are less known if compared to venous thromboembolism for the presence of deep venous thromboses while major complication as PE may be relevant and similar. Moreover, an improvement of our methodological and clinical approach should be considered because SVT may be also a disease that may reduce quality of life of oncological patients, so an improvement of our knowledge on risk factors in order to prevent SVT, type of treatment and follow up is needed.

### **REFERENCES**

1. **Marchiori A, Mosena L, Prandoni P.** Superficial vein thrombosis: risk factors, diagnosis and treatment. *Semin Thromb Hemost* 2006; **32**: 737–43.
2. **Trousseau A.** Phlegmasia alba dolens. I: Bailliere JB, Ediatr. *Clinique Medicale de l'Hotel Dieu de Paris*, 2 nd Ed 3, **1865**: 654–712.

Received: February 18, 2008.

\*Correspondance: E-mail: pdimicco@libero.it

Abbreviations used: SVT– superficial vein thrombosis.

3. **Suárez Fernández C, González-Fajardo JA, Monreal Bosch M.** Grupo del Registro RIETE. Computerized registry of patients with thromboembolic disease in Spain (RIETE): background, objectives, methods, and preliminary results. *Rev Clin Esp.* 2003; **203**: 68–73.

4. **Marchiori A, Verlato F, Sabbion P, et al.** High versus low doses of unfractionated heparin for the treatment of superficial thrombophlebitis of the leg. A prospective, controlled, randomised study. *Haematologica* 2002; **87**: 523–7.

5. **Martinelli I.** Risk factors in venous thromboembolism. *Thromb Haemost* 2001; **86**: 395–403.

6. **Margaglione M, Brancaccio V, Ciampa A, et al.** Inherited thrombophilic risk factors in a large cohort of individuals referred to Italian thrombophilia centers: distinct roles in different clinical settings. *Haematologica* 2001; **86**: 634–9.

7. **Maki DG, Ringer M.** Risk factors for infusion-related phlebitis with small peripheral venous catheters. A randomised controlled trial. *Ann Intern Med* 1991; **114**: 845–54.