**ABSTRACT**

Introduction: The association between venous thromboembolism (VTE) and cancer is well-recognised, but the thrombosis risk factor profile of patients with cancer-associated VTE is poorly characterised. It is unknown if there are differences in cancer-free VTE patients. The aim of our study was to describe the risk factor profiles of cancer and non-cancer patients with VTE enrolled in VERITY, an ongoing UK prospective VTE registry.

Methods: Of 49,044 case entries, cancer and VTE status were known in 41,367. In total, 10,168 (25.5%) had VTE. Of these, 1425 (13.5%) had cancer and 9093 (86.5%) were cancer-free. The presence of 7 established risk factors for VTE was compared in the cancer and cancer-free groups.

Results: Cancer patients with VTE were more likely to have the following risk factors: medical illness (medical in-patient history or immobilisation >3 days in last 4 weeks) (14.6% vs. 10.3%, \( \chi^2(1, N=11203)=61.1, p<0.0001 \)), surgery (major surgery in the last 4 weeks) (25.2% vs. 20.0%, \( \chi^2(1, N=11203)=33.8, p<0.0001 \)), known thrombophilia (2.2% vs. 1.1%, \( \chi^2(1, N=9678)=8.8, p<0.0089 \)), intravenous drug abuse (6.2% vs. 5.8%, \( \chi^2(1, N=1007)=4.8, p<0.0011 \)), and smoking (current smoker) (26.9% vs. 14.2%, \( \chi^2(1, N=1007)=48.2, p<0.0001 \)). Cancer-free patients with VTE were more likely to have the following risk factors: previous history of VTE (25.2% vs. 16.2%, \( \chi^2(1, N=1007)=48.2, p<0.0001 \)), and hormonal risk (use of hormone-replacement therapy, oral contraceptives, pregnant or post-partum) (26.6% vs. 15.6%, \( \chi^2(1, N=1007)=31.1, p<0.0001 \)). Cancer-free patients with VTE were more likely to have the following risk factors: previous history of VTE (25.2% vs. 16.2%, \( \chi^2(1, N=1007)=48.2, p<0.0001 \)), and hormonal risk (use of hormone-replacement therapy, oral contraceptives, pregnant or post-partum) (26.6% vs. 15.6%, \( \chi^2(1, N=1007)=31.1, p<0.0001 \)). Cancer-free patients with VTE without cancer were more likely to have experienced a medical in-patient stay or immobilization for >3 days in the last 4 weeks (51.9% vs. 46.2%, \( \chi^2(1, N=1007)=48.2, p<0.0001 \)), and smoking (current smoker) (26.9% vs. 14.2%, \( \chi^2(1, N=1007)=48.2, p<0.0001 \)).

Conclusions: Cancer and non-cancer patients with VTE have distinct thrombosis risk factor profiles. Previous history of VTE, known thrombophilia, intravenous drug abuse and smoking were significantly more common in the cancer-free thrombosis group. These findings have implications for risk algorithms for VTE prevention.

Following submission of this abstract, the database was updated and clarified. This poster presents updated and final data, which differ from the data presented in this abstract. The presented data have not altered the conclusion in the submitted abstract.

**WHAT IS VERITY?**

VERITY is an ongoing UK prospective VTE registry, with a mission to increase knowledge and share best practice.

**ABSTRACT**

**CONCLUSIONS**

- In the VERITY registry population, cancer and non-cancer patients with VTE exhibited distinct thrombosis risk factor profiles.
- Cancer patients with VTE were more likely to have the following risk factors: previous (personal) history of VTE, known thrombophilia, intravenous drug abuse, smoking (current smoker), and medical in-patient stay or immobilization for >3 days in the last 4 weeks.
- Non-cancer patients with VTE were more likely to have the following risk factors: previous (personal) history of VTE, known thrombophilia, intravenous drug abuse, smoking (current smoker), and medical in-patient stay or immobilization for >3 days in the last 4 weeks.

**RESULTS**

- **Patient data in VERITY database**
  - 49,044 patient entries in VERITY database
- **Risk factors in VTE patients with and without cancer**
  - 41,367 patient entries with sufficient data
  - 7,677 patient entries for which VTE status, cancer status or both was not recorded
- **Non-cancer patient entries in VERITY database**
  - 41,201 patient entries
  - 1,503 entries for patients already in the database

**Data in the VERITY registry**

- Between February 2005 and March 2008, 49,044 patient entries were made online by 43 hospitals in the UK.
- VTE status (confirmed or excluded) and cancer status (malignancy or no malignancy) was known for 41,367 patient entries.
- Data validation excluded 166 entries for no hospital name specified (n=86), female prostate cancer (n=11), male breast cancer (n=3) and others (n=46).
- **Patient data for risk factor profile comparison**
  - The χ² test with Yates correction was used to analyse the difference in frequencies using two-way tables.
  - The results are expressed as percentage differences, with the corresponding χ² value, number of degrees of freedom and two-sided p value.

**WHAT IS VERITY?**

VERITY (Venous thromboembolism RegAtry) is a national venous thromboembolism registry, with a mission to empower healthcare professionals to develop and improve the treatment of venous thromboembolism through increasing knowledge and sharing best practice.

**VERITY OBJECTIVES**

- Identify opportunities to improve the quality of care
- Develop appropriate treatment and prevention strategies
- Develop hypotheses for clinical research
- Provide a forum for health care workers

**Risk factor profiles in patients with and without cancer**

- The association between VTE and cancer is well recognised, but the thrombosis risk factor profile of patients with cancer-associated VTE is poorly characterised.
- It is unknown whether there are different risk factor profiles for cancer-free and non-cancer patients with VTE.
- The aim of this analysis was to compare the risk factor profiles of cancer and non-cancer patients with VTE enrolled in VERITY.