

Cardiac problems, arterial and venous problems are common in the modern world which are grouped under non-communicable disease. Acute venous thromboembolism (VTE) is known to be the 3rd most common cause of death. Chronic venous disorders can be post-thrombotic or non-thrombotic. The chronic venous disorders are known to be associated increased morbidity and significant economic loss to the society. In our modern society the people develop multiple risk factors which increase the incidence of deep vein thrombosis (acute, chronic), pulmonary embolism, varicose veins, leg edema, Lipodermatosclerosis (LDS) and venous ulceration (Figure 1). Some studies have shown gender differences in the incidence of venous problems. Brand FN et al (1988) in the Framingham study found that the incidence of varicose veins is higher among women than men with no clear age differences.¹

Women with varicose veins were more often obese ($p < .01$), had lower levels of physical activity ($p < .001$) and higher systolic blood pressure ($p < .001$), and were older at menopause ($p < .001$). Women who reported spending eight or more hours in an average day in sedentary activities (sitting or standing) also had a significantly higher incidence of varicose veins than those who spent four or fewer hours a day in such activities ($p < .05$). For men, varicose veins coexisted with lower levels of physical activity ($p < .05$) and higher smoking rates ($p < .05$). While men and women with varicose veins had a higher incidence of atherosclerotic cardiovascular disease than those without varicose veins, only the excess risk of coronary heart disease in women was statistically

significant ($p < .05$). However, this finding was not significant after controlling for body mass and systolic blood pressure. These results suggest that increased physical activity and weight control may help prevent varicose veins among adults at high risk, and reduce the overall risk of atherosclerotic cardiovascular disease as well.

In an Indian epidemiological study, S L Malhotra (1972) reported the prevalence of varicose veins among railway men of identical socio-economic status and doing identical work in the Indian railways. He showed that the prevalence was 25.08% among South Indian employees and 6.8% among the North Indian employees. While men and women with varicose veins had a higher incidence of atherosclerotic cardiovascular disease than those without varicose veins, only the excess risk of coronary heart disease in women was statistically significant ($p < .05$). However, this finding was not significant after controlling for body mass and systolic blood pressure. These results suggest that increased physical activity and weight control may help prevent varicose veins among adults at high risk, and reduce the overall risk of atherosclerotic cardiovascular disease as well. He said that While constipation, body weight, smoking, posture and tight undergarments do not appear to contribute to the causation of varicose veins, the role of heredity could not be examined in this study. Since such differences are known to be diet related, this study suggested that, in the prevalence of varicose veins, patterns of diet and eating may play an important part. Therefore, there would seem to be hope that this disease may be prevented.²

The risk factors for venous thromboembolism are commonly prevalent in the hospitalized patients admitted into the acute ward beds. In the ENDORSE study (2008), A large proportion of hospitalized patients were found to be at risk for VTE, but there was a low rate of appropriate prophylaxis. It was said that there is a need for rationale for the use of hospital-wide strategies to assess patients' VTE risk and to implement measures that ensure that at-risk patients receive appropriate prophylaxis. 68 183 patients were enrolled; 30 827 (45%) were categorized as surgical, and 37 356 (55%) as medical. On the basis of ACCP criteria, 35 329 (51.8%; 95% CI 51.4–52.2; between-country range 35.6–72.6) patients were judged to be at risk for VTE, including 19 842 (64.4%; 63.8–64.9; 44.1–80.2) surgical patients and 15 487 (41.5%; 41.0–42.0; 21.1–71.2) medical patients. Of the surgical patients at risk, 11 613 (58.5%; 57.8–59.2; 0.2–92.1) received ACCP-recommended

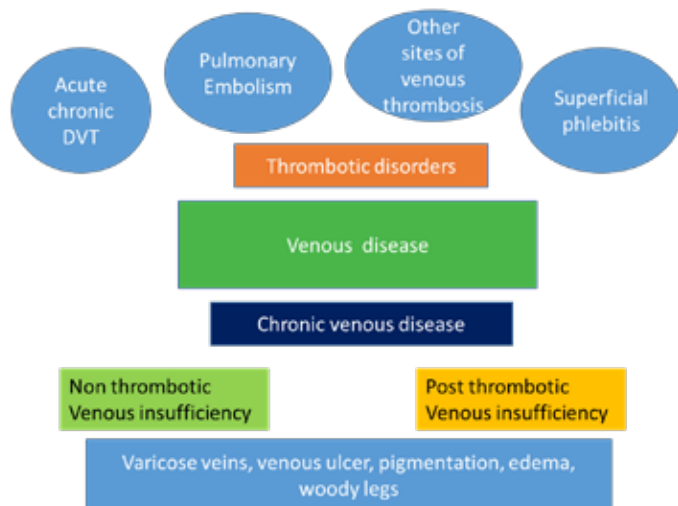


Fig. 1: Types of Venous disease

872 VTE prophylaxis, compared with 6119 (39.5%; 38.7–40.3; 3.1–70.4) at-risk medical patients.³

In Subset data of ENDORSE, it was found out despite a similar proportion of at-risk hospitalized patients in India and other participating countries, there was major underutilization of prophylaxis in India. It necessitates increasing awareness about VTE risk and ensuring appropriate thromboprophylaxis

Results: In India, we recruited 2058 patients (1110 surgical, 948 medical) from 10 randomly selected hospitals in India between August 2006 and January 2007. According to the ACCP criteria, 1104 (53.6%) patients [surgical 680 (61.3%), medical 424 (44.7%)] were at-risk for VTE. Chronic pulmonary disease/heart failure and complete immobilization were the most common risk factors before and during hospitalization, respectively. In India, 16.3 per cent surgical and 19.1 per cent medical at-risk patients received ACCP recommended thromboprophylaxis. Interpretation & conclusions: Despite a similar proportion of at-risk hospitalized patients in India and other participating countries, there was major underutilization of prophylaxis in India. It necessitates increasing awareness about VTE risk and ensuring appropriate thrombo-prophylaxis.⁴

Varicose veins are part of the spectrum of chronic venous disease and include spider telangiectasias, reticular veins, and true varicosities. Approximately 23% of US adults have varicose veins.⁵ If spider telangiectasias and reticular veins are also considered, the prevalence increases to 80% of men and 85% of women.⁶ Generally more common in women and older adults, varicose veins affect 22 million women and 11 million men between the ages of 40 to 80 years. 1 of these, 2 million men and women will develop symptoms and signs of chronic venous insufficiency, including venous ulceration.

The sheer prevalence of varicose veins and the substantial cost of treating late complications such as chronic venous ulcers contribute to a high burden on health care resources.² Chronic venous ulcerations result in the loss of 2 million workdays and cost an estimated \$3 billion per year to treat in the United States.⁷ Even varicose veins alone, without more advanced signs of chronic venous insufficiency, result in important reductions in quality of life.⁸

In United Kingdom, assessment and treatment of varicose veins comprises a significant part of the surgical workload. In the UK, National Health Service waiting lists suggest that there is still considerable unmet need. In India too, assessment and treatment of venous diseases in an unmet need. Callam MJ (1994) analyzed all the published data on the epidemiology of varicose veins, paying particular regard to the differing epidemiological terminology, populations sampled, assessment methods and varicose

vein definitions, which account for much of the variation in literature reports. Half of the adult population have minor stigmata of venous disease (women 50-55 per cent; men 40-50 per cent) but fewer than half of these will have visible varicose veins (women 20-25 per cent; men 10-15 per cent). The data suggest that female sex, increased age, pregnancy, geographical site and race are risk factors for varicose veins; there is no hard evidence that family history or occupation are factors. Obesity does not appear to carry any excess risk. Accurate prevalence data allow provision of appropriate resources or at least aid rational debate if demand is greater than the resources available.⁹

In India, the importance of identifying and treating the venous disease is getting better with increased use of ultrasound and doppler assessment, endovenous therapies, adequate anticoagulation, compression therapies, thrombo-prophylactic measures and venous ulcer care. However more epidemiological studies are needed to assess the incidence and natural course of the venous disease in different populations and effect of various treatments on the natural course of venous diseases, so it is accepted that this is an unmet need.

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