

SEATED IMMOBILITY AT WORK IS A COMMON RISK FACTOR FOR VENOUS THROMBOEMBOLISM

K Perrin , S Aldington, R Beasley

Medical Research Institute of New Zealand, Wellington, New Zealand

Background: The role of seated immobility in the pathogenesis of venous thromboembolism (VTE) associated with long distance travel is well recognized. However, whether seated immobility at work is also an important risk factor for VTE is uncertain. The aim of this case series was to determine the frequency of seated immobility at work as a clinical risk factor in patients admitted to hospital with a deep vein thrombosis (DVT) or pulmonary embolism (PE).

Methods: Patients aged <65 years attending an outpatient VTE clinic following a recent admission for DVT and/or PE were interviewed to obtain information regarding clinical risk factors. Seated immobility at work was identified as a risk factor if in the 4 week period prior to the onset of symptoms, the subject had been seated a maximum of ≥ 8 hours per day and ≥ 3 hours at a time without getting up, or had been seated a maximum of ≥ 12 hours per day and ≥ 1 hour at a time without getting up.

Results: There were 62 subjects studied in whom 49 had a DVT, 33 had a PE, and 20 had both DVT and PE. Prolonged seated immobility at work occurred in 21/62 (34%) of cases, representing one the most common risk factors together with family history (35%) and thrombophilic state (32%). Seated immobility secondary to prolonged air travel (>8 hours) was identified in 13/62 (21%) of cases. Although other risk factors commonly occurred in subjects with seated immobility at work, in 4 subjects no other risk factors were identified. Of the 21 subjects with seated immobility at work 6 (29%) worked in the IT industry, 4 (19%) worked in management and 2 (9.5%) were taxi drivers. Seated immobility, as a result of either work or travel, accounted for nearly half (48%) of all cases.

Conclusions: Seated immobility at work may represent an important independent risk factor for VTE. Further research is required to better understand its role, identify the high risk occupations and the efficacy of preventive measures. Overall seated immobility in different situation, included work and air travel, represented the most common risk factors for VTE.