Screening for Occult Malignancy in patients with unprovoked venous thromboembolism

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Background

• Venous thromboembolism (VTE) may be the earliest sign of cancer.

• Up to 10% of patients with unprovoked VTE are diagnosed with cancer in the year following their VTE diagnosis.

Occult cancer screening in VTE patients

Why?
• Earlier detection
  – Curable cancer
  – ↑ survival
  – ↓ morbidity

Why not?
• Anxiety
• May lead to unnecessary invasive procedures
  – “incidental findings”
• Costs
Occult cancer screening strategies

• Great diversity in practices

• Limited screening strategy:
  – History, physical examination, routine blood tests and a chest-X ray

• More extensive screening strategy:
  – Computed tomography (CT) of the abdomen/pelvis has highest yield

Objective

• To assess the efficacy of an occult cancer screening strategy using a comprehensive CT of the abdomen/pelvis in patients with a first unprovoked VTE.
Limited cancer screening +

Primary outcome measure:
Confirmed cancer missed by the screening strategy and detected by the end of the 1-year follow-up period and an uniphasic enhanced CT of the distended bladder cancer screening.
Results

- 33 patients (3.9%) had a new diagnosis of cancer in the interval between randomization and 1-year follow-up.
Primary outcome measure

Limited plus CT: 5 (5/423; 1.18%)

No difference between the groups

Limited screening: 4 (4/431; 0.93%)
Other outcome measures

• No difference in the rate of detection of early cancers ($T_{1-2}, N_0, M_0$)

• No difference in overall mortality

• No difference in cancer-related mortality

• No difference in time to cancer diagnosis
Conclusions

• Prevalence of occult cancer is low in patients with first unprovoked VTE

• Routine screening with comprehensive CT abdomen/pelvis does not provide a clinically significant benefit
Screening for Occult Cancer in Unprovoked Venous Thromboembolism

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