

ALTERAZIONI DELLE PIASTRINE E CONDIZIONI GENETICHE

**THE IMPACT OF KRAS MUTATIONS ON THE RISK OF RECURRENT VENOUS THROMBOEMBOLISM IN PATIENTS WITH CANCER -ASSOCIATED THROMBOSIS AND GASTROINTESTINAL NEOPLASMS.**

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**Background:** KRAS mutant malignant cells can lead to overexpression of tissue factor (TF), a main contributor to cancer associated thrombosis (CAT). The relationship between KRAS mutations and the risk of recurrent venous thromboembolism (VTE) in gastrointestinal cancer patients with established CAT is not well established. **Aims:** to assess the role of KRAS mutation status on VTE recurrence in patients with gastrointestinal cancers and CAT. **Design:** retrospective single centre study with one year follow-up. **Results:** we enrolled 138 patients, (M/F:72/66, mean age 62 years ;range: 19-85). Cancers types were: oesophageal or duodenal or ileal in 20, pancreatic or biliary or stomach in 59, colon-rectal in 59. KRAS was mutated in 30 patients (wild type in 56, not available in

52). Follow-up at one year was available in 115. There were 25 proximal DVTs, 12 calf DVT, 38 isolated PE, 40 proximal or calf DVT with PE. At 12 months 38 patients died (27%). During one year follow-up, we observed 18 recurrent episodes of VTE (15.6%) of which 12 were DVT, 3 were PE and 3 progressions of previous DVT. Among patients with mutated KRAS, we observed 6 recurrent events (20%) while 6 events were observed in patients with wild type KRAS (11%) (P=ns), while 6 events occurred in patients in whom KRAS mutation status was not available (11.56%). **Conclusions:** Our data are preliminary and show a trend in an increased risk of recurrent VTE in patients with CAT and gastro-intestinal cancers with KRAS mutations. Larger studies are required to confirm this observation.

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