Recent Data show that Low Molecular Weight Heparins are still the only way to go when Cancer Patients suffer Clots or VTE

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Edoxaban for Cancer-Associated VTE


Bleeding in Cancer-Associated VTE

Gastrointestinal Cancer

Rivaroxaban for Cancer-Associated VTE

Primary Outcome: recurrent VTE
Secondary Outcome: Major Bleeding

Young AM, et al, J Clin Oncol, 2018; 36: 2017-23

Bleeding in Cancer-Associated VTE

<table>
<thead>
<tr>
<th>Sites of Major Bleeding</th>
<th>Dalteparin (n=203)</th>
<th>Rivaroxaban (n=203)</th>
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<tr>
<td>Gastrointestinal</td>
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<tr>
<td>Sites of CRNM Bleeding</td>
<td>Dalteparin (n=203)</td>
<td>Rivaroxaban (n=203)</td>
</tr>
<tr>
<td>Gastrointestinal</td>
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<tr>
<td>Genitourinary</td>
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<tr>
<td>Other sites</td>
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</tr>
</tbody>
</table>
Rivaroxaban for CVC-associated VTE

- Patients ≥18 years of age with active malignancy and symptomatic proximal UE DVT due to CVC
- Treated with rivaroxaban 15 mg twice daily for 9 weeks
- Primary outcome: Line preservation was 100% at 12 weeks
- Secondary outcomes:
  - Recurrent VTE: one fatal PE at 6 weeks (1.43%; 95% CI 0.25-7.66)


Cancer and thrombocytopenia

- Thrombocytopenia is a common problem in patients with cancer
- Patients with platelet counts <50 x 10^9/L were excluded from participation in Hokusai VTE Cancer, and SELECT-D required “adequate hematologic function”
- “Data on the use of DOACs in cancer-associated thrombosis patients with severe thrombocytopenia (<50 x 10^9/L) are lacking. …DOACs may not be appropriate for most patients with cancer-associated thrombosis and platelet counts of <50 x 10^9/L”


Drug-drug Interactions with the DOAC’s

- Certain classes of chemotherapeutic agents interact with CYP3A4, P-glycoprotein, or both
  - Antimitotic microtubule inhibitors (e.g., vinca alkaloids and taxanes)
  - Tyrosine kinase inhibitors (exceptions include erlotinib, gefitinib, and sorafenib)
  - Immune-modulating agents, including glucocorticoids and mTOR inhibitors (with the exception of everolimus)

Conclusions: when to favor a LMWH?

- Patients with gastrointestinal malignancy or with a high risk for gastrointestinal bleeding
- Patients anticipated to have extended periods of “severe” thrombocytopenia (<50 x 10^9/L)
- Patients receiving chemotherapeutic agents known to strongly inhibit or induce CYP3A4 and/or P-glycoprotein
- Consider a LMWH in the following scenarios
  - Patients with cancer and a CVC-associated UE thrombosis
  - Patients with cancer at extremes of body weight
  - Patients with a history of genitourinary or excessive gynecologic bleeding