Abstract: P686

Cancer is not associated with increased cardiac and bleeding events after 2nd- and 3rd-generation drug-eluting stents implantation

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Topic(s):
Cardio-Oncology

Citation:

Background
Previous studies demonstrated the impact of concomitant cancer on the increased risk of adverse cardiac and bleeding events after percutaneous coronary intervention (PCI). However, the impact in this 2nd- and 3rd-generation drug-eluting stent (DES) era remains to be elucidated.

Purpose
To clarify the impact of cancer on clinical outcomes in patients after 2nd- or 3rd-generation DES implantation.

Methods
A total of 932 patients who underwent PCI with 2nd- or 3rd-generation DES were included. Patients who were diagnosed with cancer after PCI were excluded from the present cohort. The incidence of major adverse cardiac events (MACE) including cardiac death, myocardial infarction and target or non-target vessel revascularization, and bleeding events was compared between the patients with cancer or the history of treatment for cancer (cancer group, n=140) and the patients without cancer (no cancer group, n=792). Bleeding events were evaluated according to the Thrombolysis in Myocardial Infarction definition. Further comparisons were performed between the 2 groups (cancer group, n=126; no cancer group, n=252) after the adjustment of baseline clinical characteristics using 1:2 propensity score-matching analysis.

Results
The incidence of MACE at median 577 [340 - 1043] days after the PCI was comparable between the 2 groups in both unadjusted (15.0% vs. 15.0%, p=0.984) (Panel A) and adjusted cohorts (14.3 vs. 13.1%, p=0.796), although the incidence of all cause death in the cancer group was significantly greater than the no cancer group (15.1 vs. 9.5%, p=0.007, in the adjusted cohort). The increased risk of MACE was not observed in any types of cancer or treatment (Panel B). The incidence of bleeding events was also comparable between the 2 groups (4.0 vs. 2.0%, p=0.297, in the adjusted cohort).

Conclusion
The increased incidence of MACE and bleeding events in patients with cancer was not demonstrated after the 2nd- or 3rd-generation DES implantation. Further studies are required to clarify the safety and efficacy of PCI in patients with cancer.
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The increased incidence of MACE and bleeding events in patients with cancer was not demonstrated after the 2nd- or 3rd-generation DES implantation. Further studies are required to clarify the safety and efficacy of PCI in patients with cancer.

A. MACE free rate according to the presence of cancer

B. Risk for MACE according to the type of cancer and treatment

<table>
<thead>
<tr>
<th>Variables</th>
<th>Odds ratio [95% CI]</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location of cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stomach cancer</td>
<td>0.661 [0.104-2.339]</td>
<td>0.537</td>
</tr>
<tr>
<td>Colon cancer</td>
<td>0.845 [0.197-2.508]</td>
<td>0.836</td>
</tr>
<tr>
<td>Kidney cancer</td>
<td>1.423 [0.321-6.551]</td>
<td>0.623</td>
</tr>
<tr>
<td>Prostate cancer</td>
<td>1.688 [0.548-4.358]</td>
<td>0.295</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>2.360 [0.624-6.944]</td>
<td>0.199</td>
</tr>
<tr>
<td>Type of treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiation therapy</td>
<td>0.292 [0.039-2.291]</td>
<td>0.188</td>
</tr>
<tr>
<td>Chemotherapy</td>
<td>0.773 [0.227-2.003]</td>
<td>0.576</td>
</tr>
<tr>
<td>Surgical treatment</td>
<td>1.037 [0.560-1.808]</td>
<td>0.960</td>
</tr>
</tbody>
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