COLOMIN2

First results of the French prospective cohort of colorectal cancers with microsatellite instability - COLOMIN2

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1 Poitiers, 2 Avignon, 3 Paris (HEGP), 4 Dijon, 5 Montpellier, 6 Paris (Saint-Antoine), 7 Tours, 8 Nîmes, 9 Saint Malo, 10 Châtel, 11 Plerin, 12 Rosely, 13 Beziers, 14 Romans, 15 Saint Nazaire, 16 Paris (Bichat), 17 Dijon, 18 Reims

Introduction
- Colorectal cancers with microsatellite instability/deficient mismatch repair (dMMR/MSI CRC) are associated with particular outcomes:
  - Good prognosis in adjuvant setting
  - Worse prognosis in metastatic setting
  - Adjuvant SFU chemoresistance in stage II
  - A high sensitivity to immune checkpoint inhibitors (ICI)
- There is no large prospective real-life cohort evaluating outcome and prognostic factors in dMMR/MSI CRC.

Methods
- COLOMIN2 is a prospective, multicenter cohort designed to assess treatment and prognosis of dMMR/MSI CRC.
- Key eligibility criteria included histologically proven CRC with a MSI (molecular biology) and/or dMMR (immunohistochemistry, IHC) status.
- The primary endpoint is time to recurrence (TTR) for non-metastatic tumors and progression-free survival (PFS) for metastatic tumors.

Results
- Between March 2017 and October 2021, 637 patients were included by 57 centers.
- Most tumors had a MMR IHC (76.1%) and 23.9% had a MSI test alone.

Table 1. Patient and tumor characteristics according tumor stage

<table>
<thead>
<tr>
<th>Stage</th>
<th>N=637</th>
<th>N=253</th>
<th>N=181</th>
<th>N=116</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Mean, SD)</td>
<td>69.2 (13.3)</td>
<td>71.8 (13.8)</td>
<td>68.8 (13.8)</td>
<td>66.8 (15.0)</td>
</tr>
<tr>
<td>Gender: Female</td>
<td>47 (68.1%)</td>
<td>147 (58.1%)</td>
<td>115 (63.5%)</td>
<td>63 (53.4%)</td>
</tr>
<tr>
<td>WHO PS 0-1</td>
<td>33 (89.2%)</td>
<td>146 (87.9%)</td>
<td>114 (89.1%)</td>
<td>71 (78.9%)</td>
</tr>
<tr>
<td>MMR gene mutation (proven Lynch syndrome)</td>
<td>33 (49.3%)</td>
<td>88 (35.6%)</td>
<td>83 (47.2%)</td>
<td>44 (38.9%)</td>
</tr>
</tbody>
</table>

Figure 2. RFS according adjuvant chemotherapy

Figure 3. Overall survival

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Discussion
This real-life cohort of dMMR/MSI CRC confirms:
- Good prognosis at non-metastatic stage, especially stage I and II but high recurrence rate in stage III with no adjuvant chemotherapy.
- Poor prognosis at metastatic stage, especially patients treated by chemotherapy +/- targeted therapy.
- Molecular analyses are currently explored to better determine the prognosis and chemosensitivity of dMMR/MSI CRC.

Conflicts of interests
- D. Tougeron is speaker and/or advisory board for Astrazeneca, MSD, BMS and Roche.
- COLOMIN2 study was promoted by Fédération Française de Cancérologie Digestive (FFCD) and funded by Société nationale française de gastro-entérologie (SNFGE).

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