**Supplementary Table 2.** Multivariable Cox proportional hazards model for patients under systemic treatment with positive ctDNA with loss of 5q

<table>
<thead>
<tr>
<th>Variables</th>
<th>Hazard ratio</th>
<th>95% Confidence interval</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>5q loss</td>
<td>8.92</td>
<td>1.79–44.38</td>
<td>0.007*</td>
</tr>
<tr>
<td>AFP ≥20 ng/mL</td>
<td>0.98</td>
<td>0.17–5.70</td>
<td>0.989</td>
</tr>
<tr>
<td>Macrovascular invasion</td>
<td>0.51</td>
<td>0.14–1.80</td>
<td>0.301</td>
</tr>
<tr>
<td>Tumor size ≥5 cm</td>
<td>2.52</td>
<td>0.55–11.40</td>
<td>0.229</td>
</tr>
<tr>
<td>Extrahepatic spread</td>
<td>0.30</td>
<td>0.06–1.43</td>
<td>0.133</td>
</tr>
</tbody>
</table>

*Statistical significance, \( P<0.05 \).