**Supplementary Table 1 Polyp characteristics by intervention, overall, n (%)**

<table>
<thead>
<tr>
<th></th>
<th>N = 428</th>
<th>ESD (N = 125)</th>
<th>Knife-assisted endoscopic resection (N = 45)</th>
<th>EMR (N = 258)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean size of polyp, mm (mean ± SD)</td>
<td></td>
<td>35.8 (17.3)</td>
<td>33.3 (9.9)</td>
<td>30.5 (10.8)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>En bloc</td>
<td></td>
<td>113 (90.4)</td>
<td>14 (31.1)</td>
<td>52 (20.2)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Prior attempt</td>
<td></td>
<td>7 (5.6)</td>
<td>2 (4.4)</td>
<td>18 (7.0)</td>
<td>0.754</td>
</tr>
<tr>
<td>Location of polyp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cecum</td>
<td></td>
<td>18 (14.4)</td>
<td>9 (20.0)</td>
<td>59 (22.9)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Ascending</td>
<td></td>
<td>27 (21.6)</td>
<td>17 (37.8)</td>
<td>98 (38.0)</td>
<td></td>
</tr>
<tr>
<td>Transverse</td>
<td></td>
<td>11 (8.8)</td>
<td>8 (17.8)</td>
<td>61 (23.6)</td>
<td></td>
</tr>
<tr>
<td>Descending</td>
<td></td>
<td>5 (4.0)</td>
<td>5 (11.1)</td>
<td>20 (7.8)</td>
<td></td>
</tr>
<tr>
<td>Sigmoid</td>
<td></td>
<td>14 (11.2)</td>
<td>2 (4.4)</td>
<td>11 (4.3)</td>
<td></td>
</tr>
<tr>
<td>Rectum</td>
<td></td>
<td>50 (40.0)</td>
<td>4 (8.9)</td>
<td>9 (3.5)</td>
<td></td>
</tr>
<tr>
<td>Pathology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-neoplastic</td>
<td></td>
<td>0 (0.0)</td>
<td>1 (2.2)</td>
<td>15 (5.8)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Neoplastic, no high-grade dysplasia</td>
<td></td>
<td>85 (68.0)</td>
<td>32 (71.1)</td>
<td>219 (84.9)</td>
<td></td>
</tr>
<tr>
<td>High-grade dysplasia</td>
<td></td>
<td>22 (17.6)</td>
<td>8 (17.8)</td>
<td>15 (5.8)</td>
<td></td>
</tr>
<tr>
<td>Neuroendocrine tumor</td>
<td></td>
<td>1 (0.8)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td></td>
<td>17 (13.6)</td>
<td>4 (8.9)</td>
<td>9 (3.5)</td>
<td></td>
</tr>
<tr>
<td>Complete Resection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>R0</td>
<td></td>
<td>92 (73.6)</td>
<td>12 (26.7)</td>
<td>21 (8.1)</td>
<td></td>
</tr>
<tr>
<td>R1</td>
<td></td>
<td>28 (22.4)</td>
<td>33 (73.3)</td>
<td>218 (84.5)</td>
<td></td>
</tr>
<tr>
<td>Rx</td>
<td></td>
<td>5 (4.0)</td>
<td>0 (0.0)</td>
<td>19 (7.4)</td>
<td></td>
</tr>
<tr>
<td>Follow-up</td>
<td>77 (61.6)</td>
<td>32 (71.1)</td>
<td>178 (69.0)</td>
<td>0.290</td>
<td></td>
</tr>
</tbody>
</table>
### Supplementary Table 2 Univariate Cox regression evaluating predictors of recurrence, including ESD and knife assisted endoscopic resection versus EMR

<table>
<thead>
<tr>
<th>Covariates</th>
<th>Unadjusted hazard ratio (95%CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment type</td>
<td></td>
<td>0.020</td>
</tr>
<tr>
<td>EMR, pure</td>
<td>(Reference)</td>
<td></td>
</tr>
<tr>
<td>ESD + knife-assisted</td>
<td>0.09 (0.01-0.69)</td>
<td></td>
</tr>
<tr>
<td>Age, per year</td>
<td>1.04 (0.99-1.08)</td>
<td>0.094</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td>0.912</td>
</tr>
<tr>
<td>Female</td>
<td>(Reference)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1.05 (0.46-2.38)</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td>0.122</td>
</tr>
<tr>
<td>White</td>
<td>(Reference)</td>
<td></td>
</tr>
<tr>
<td>Non-White</td>
<td>1.91 (0.84-4.31)</td>
<td></td>
</tr>
<tr>
<td>Polyp location</td>
<td></td>
<td>0.420</td>
</tr>
<tr>
<td>Non-rectum</td>
<td>(Reference)</td>
<td></td>
</tr>
<tr>
<td>Rectum</td>
<td>0.55 (0.13-2.36)</td>
<td></td>
</tr>
<tr>
<td>Prior resection attempt</td>
<td>2.83 (0.81-9.93)</td>
<td>0.105</td>
</tr>
<tr>
<td>Polyp size, by mm</td>
<td>1.03 (1.01-1.05)</td>
<td><strong>0.001</strong></td>
</tr>
<tr>
<td>Presence of circumferential incision</td>
<td>0.11 (0.01-0.79)</td>
<td><strong>0.028</strong></td>
</tr>
<tr>
<td>En bloc resection</td>
<td>0.15 (0.04-0.64)</td>
<td><strong>0.010</strong></td>
</tr>
<tr>
<td>JNET classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 1</td>
<td>(Reference)</td>
<td></td>
</tr>
<tr>
<td>Type 2A</td>
<td>2.82 (0.38-21.00)</td>
<td>0.312</td>
</tr>
<tr>
<td>Type 2B or 3</td>
<td>3.57 (0.32-39.67)</td>
<td>0.301</td>
</tr>
<tr>
<td>R0 resection</td>
<td>0.13 (0.02-0.97)</td>
<td><strong>0.046</strong></td>
</tr>
</tbody>
</table>
Supplementary Table 3 Multivariate Cox regression evaluating predictors of recurrence, including ESD and knife assisted endoscopic resection versus EMR

<table>
<thead>
<tr>
<th>Covariates</th>
<th>Adjusted hazard ratio (95%CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment type</td>
<td></td>
<td>0.008</td>
</tr>
<tr>
<td>EMR, pure</td>
<td>(Reference)</td>
<td></td>
</tr>
<tr>
<td>ESD + knife-assisted</td>
<td>0.05 (0.01-0.45)</td>
<td></td>
</tr>
<tr>
<td>Polyp size, by mm</td>
<td>1.05 (1.03-1.07)</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>