

Table 3. Factors associated with and outcomes of open conversion after laparoscopic liver resection in 300 patients

| Factors associated with open conversion | Completed LLR n=287 | Open conversion n=13 | P value | OR (95% CI) | P value |
|---|------------------------|-------------------------|--------------|-------------------|--------------|
| Malignant tumour, no. (%) | | | | | |
| Yes | 216 (94.7) | 12 (5.3) | 0.201 | | |
| No | 71 (98.6) | 1 (1.4) | | | |
| Surgeon experience, no. (%) | | | | | |
| First 60 cases | 54 (90.0) | 6 (10.0) | 0.016 | 4.04 (1.28–12.80) | 0.017 |
| Subsequent 240 cases | 233 (97.1) | 7 (2.9) | | | |
| Cirrhosis, no. (%) | | | | | |
| Yes | 72 (93.5) | 5 (6.5) | 0.330 | | |
| No | 215 (96.4) | 8 (3.6) | | | |
| Previous abdominal surgery, no. (%) | | | | | |
| Yes | 147 (96.7) | 5 (3.3) | 0.408 | | |
| No | 140 (94.6) | 8 (5.4) | | | |
| Previous liver surgery, no. (%) | | | | | |
| Yes | 48 (92.3) | 4 (7.7) | 0.251 | | |
| No | 239 (96.4) | 9 (3.6) | | | |
| Concomitant other surgery/ organ resection, no. (%) | | | | | |
| Yes | 57 (95.0) | 3 (5.0) | 0.728 | | |
| No | 230 (95.8) | 10 (4.2) | | | |
| ASA score, no. (%) | | | | | |
| 3 | 90 (98.9) | 1 (1.1) | 0.118 | | |
| 1/2 | 197 (94.3) | 12 (5.7) | | | |
| Portal hypertension, no. (%) | | | | | |
| Yes | 17 (94.4) | 1 (5.6) | 0.560 | | |
| No | 270 (95.7) | 12 (4.3) | | | |
| Multifocal tumour, no. (%) | | | | | |
| Yes | 59 (95.2) | 3 (4.8) | 0.736 | | |
| No | 228 (95.8) | 10 (4.2) | | | |
| Median (IQR) tumour size, mm | 26 (23) | 30 (34) | 0.558 | | |
| Traditional major (≥ 3 contiguous segments) resection, no. (%) | | | | | |
| Yes | 46 (93.9) | 3 (6.1) | 0.452 | | |
| No | 241 (96.0) | 10 (4.0) | | | |
| Major resection, no. (%) | | | | | |
| Yes | 78 (94.0) | 5 (6.0) | 0.358 | | |
| No | 209 (96.3) | 8 (3.7) | | | |
| Multiple resections, no. (%) | | | | | |
| Yes | 25 (100) | 0 | 0.611 | | |
| No | 262 (95.3) | 13 (4.7) | | | |
| Tumour location, no. (%) | | | | | |
| Posterosuperior | 124 (94.7) | 7 (5.3) | 0.449 | | |
| Anterolateral | 163 (96.4) | 6 (3.6) | | | |
| Iwate score, no. (%) | | | | | |
| Low/intermediate | 162 (97.6) | 4 (2.4) | 0.088 | | |
| High/expert | 125 (93.3) | 9 (6.7) | | | |
| IMM grade | | | | | |
| III, High | 91 (91.9) | 8 (8.1) | 0.034 | 3.74 (1.17–12.00) | 0.026 |
| I, Low/II, Intermediate | 196 (97.5) | 5 (2.5) | | | |