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**Laparoscopic central bisectionectomy and right anterior sectionectomy  
using a rubber band retraction method**

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**Purpose:** Laparoscopic central bisectionectomy and right anterior sectionectomy for centrally located tumors are both technically demanding surgeries due to the need for two different surgical planes and extensive area of parenchymal transection, with ensuing long operative time. Here, we introduce our laparoscopic technique and present the associated perioperative outcomes relative to an open approach.

**Methods:** From April 2014 to November 2017, 26 patients underwent central bisectionectomy or right anterior sectionectomy. A total of 17 patients underwent the laparoscopic approach and 9 underwent an open approach. We used a perihilar Glissonian approach to determine each anatomical resection plane and employed a rubber band self-retraction technique to ensure proper exposure of the two resection planes.

**Results:** Among patients who underwent the laparoscopic approach, there were no cases of conversion to open surgery. The mean operative times for the laparoscopic and open groups were comparable ( $333 \pm 76$  vs.  $305 \pm 62$  min, respectively,  $p = 0.345$ ). Intraoperative blood loss ( $535 \pm 443$  vs.  $966 \pm 650$ ,  $p = 0.056$ ) and postoperative complications (1 vs. 3,  $p = 0.065$ ) were slightly less in the laparoscopic group, but the difference was not statistically significant. Surgical margins of both approaches were similar ( $0.8 \pm 0.6$  vs.  $0.7 \pm 0.2$  cm,  $p = 0.671$ ). The length of hospital stay after surgery was significantly shorter in the laparoscopic group ( $8.8 \pm 2.6$  vs.  $17.1 \pm 12.7$  days,  $p = 0.015$ ).

**Conclusion:** The laparoscopic approach for central bisectionectomy and right anterior sectionectomy described in this study is feasible and safe with respect to short-term perioperative outcomes and may provide several benefits commonly attributed to minimally invasive surgery in selected patients.