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Laparoscopic partial nephrectomy with blue diode, thulium fiber and hybrid lasers. In vivo trial on porcine kidney

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Objective, Materials and Methods

- The objective of this study was to evaluate the efficacy and safety of a novel blue diode laser (BDL) and thulium fiber laser (TFL), as well as hybrid (BDL + TFL) laser for LPN

Wavelength
1.94 nm
Energy
1.0-1.5 J

TFL

+

BDL

Wavelength
0.44 nm
Energy
0.7 J

Results

BDL:
- intensive smoke generation
- no carbonization
- feasible resection

TFL:
- intensive smoke generation
- strong carbonization
- slow cutting

BDL+TFL:
- successful resection
- no carbonization
- acceptable hemostasis