Early complications after living donor nephrectomy: analysis of the Swiss Organ Living Donor Health Registry

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BACKGROUND
We evaluated the prospectively collected data about the incidence of early peri- and postoperative complications, and potential risk factors for adverse outcomes after living kidney donation in Switzerland.

METHODS
Peri- and postoperative events were prospectively recorded on a questionnaire by the local transplant teams of all Swiss transplant centres and evaluated by the Swiss Organ Living Donor Health Registry. Complications were classified according to the Clavien grading system. A total of 1649 consecutive donors between 1998 and 2015 were included in the analysis.

RESULTS
There was no perioperative mortality observed. The overall complication rate was 13.5%. Major complications defined as Clavien ≥3 occurred in 2.1% of donors. Obesity was not associated with any complications. Donor age >70 years was associated with major complications (odds ratio [OR] 3.99) and genitourinary complications (urinary tract infection OR 5.85; urinary retention OR 6.61). There were more major complications observed in donors with laparoscopic surgery versus open surgery (p = 0.048), but an equal overall complication rate (p = 0.094).

CONCLUSION
We found a low rate of major and minor complications, independent of surgical technique, after living donor nephrectomy. There was no elevated complication rate in obese donors. In contrast, elderly donors >70 years had an elevated risk for perioperative complications.