Abstract:
In liver surgery different transection techniques are available without clear evidence regarding indication and advantage for each technique. The aim of this study was to identify the most superior liver transection technique between the different techniques (stapler, water-jet and electrocautery). Comparative analyses were performed for minor and major hepatectomies. In a single-center study, all liver resections performed between July 2007 and July 2012 were prospectively recorded and analysed. 366 liver resections were included according to predefined eligibility criteria. No clear benefit for one particular technique in minor or major hepatectomy could be shown. Cost-effectiveness analysis revealed disadvantages for stapler-hepatectomies. However, minor hepatectomies were performed with significantly lower morbidity (p<0.001), lower operating time (p = 0.001), fewer need of transfusion (p<0.0001) and shorter ICU stay (p = 0.001) than major hepatectomies. If possible, minor hepatectomies should be chosen. Competing techniques, selected according to surgeon's preference, revealed no significant differences in primary outcome measures.