Methodology We present 18 cases of arterio-ureteral fistulae that presented with life-threatening hematuria. 10 patients were treated successfully with ureteral covered stent placement (Allium ureteral stent 200x9 mm) and 8 patients are combined treated with ureteral (Allium ureteral stent 200x9 mm) and endovascular (Endovascular Stent Graft) covered stents placement. Mean surgery time was 55 min (16–95 min). The position, continuity and sealing of the stent in the ureter and vessel were documented by radiological contrast imaging.

Results All patients were treated successfully with ureteral or with combined ureteral and endovascular covered stent placement.

Conclusion In conclusion, ureteral or with combined ureteral and endovascular covered stent placement of covered stents is a feasible minimal invasive therapeutic option for the treatment of acute life-threatening hemorrhage due to arterio-ureteral fistulae.