The implantation of artificial urinary sphincter systems (AUS) in patients with complex voiding disorders, therefore multiple previous surgeries and a progressive oncologic disease is often regarded as complicated. Respecting the estimated life expectancy for this patient group and the considering the costs there are only a few such surgeries performed. We want to present the results of 7 complex cases treated with an AMS® 800 to point out that the quality of life can dramatically improve for the remaining time and the operating expense in general is lower than assumed.

Retrospective analysis of 7 patients with complex voiding disorders: 5 patients with progressive prostate cancer, 1 patient with progressive bladder cancer and 1 patient with a conus-cauda syndrome following a trauma. 4/7 of our patients had received an external beam radiation therapy (EBRT); in 3/7 case the construction of an orthothopic neobladder was necessary and 5/7 patients were in a palliative situation. In all patients several periods of urinary retention with the need of surgical intervention (UTI) as well as recurrent infections of the urinary tract occurred. For correcting a recurring obstruction we decided for implantation of a prostatic stent in 6/7 cases before implanting an AMS 800®. The patient with the conus-cauda syndrome was treated with sphincterotomy and bladder augmentation before the Implantation.

Mean Follow up was 16.2 months (range 1.2-40.9). Surgery time average 60.4 minutes (range 38-90). Neither during surgery nor in postoperative follow up complications occurred, 1 patient had to be treated twice for urinary stones within the prostatic stent. After activating the system all patients were completely dry and micturition was possible spontaneous with a Qmax of range of 21-30ml/s without storage. Quality of life improved considerably and a normal social life for patients was again made possible.

In complex cases of voiding disorders caused by storage as well as sphincter difficulties it is possible to achieve excellent results both clinically and functionally using an AMS 800® system. In cases of obstruction the implantation of a prostatic stent can successfully be performed at the same time. The surgery is not as complex as assumed in general and the quality of life can be improved dramatically.

In attention to ensure a “normal” voiding function by optionally creating a low pressure reservoir and if necessary correcting an obstruction, even complex problems can be successfully treated by implanting an AUS.