Video-Guided Transurethral Resection: Raising the Gold Standard

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Transurethral resection (TUR) of the prostate is still the gold standard for surgical treatment of prostate adenoma. In our clinic, for example, 96% of all adenomas of the prostate requiring surgery are resected transurethrally. TUR has a high success rate and is associated with improvements in flow rate, bladder emptying, and quality of life [11].

Efforts to treat prostate adenoma conservatively, using less invasive procedures, are ushering in a new era in the therapy of benign prostatic hyperplasia. A major new development in this direction is video TUR, the extension to transurethral resection of the video technology already used by gynecologists, orthopedists, and, more recently, general surgeons [2, 8, 13, 20, 21].

Astoundingly, in urology, the leading endoscopic specialty, only a few individual surgeons have performed endoscopic surgery with video guidance [1, 15–17, 22–25]. The first report in the German-language literature appeared only recently [5]. Now, however, integration of the video technique with the use of smaller, lighter, high-resolution minichip cameras is opening up new perspectives for endoscopic surgery.

**Apparatus and Method**

All operations on the prostate are currently performed with low-pressure irrigation (LP-TUR) using a continuous-flow resectoscope; if the estimated weight of the adenoma exceeds 40g, suprapubic, paracentesis of the bladder is carried out as well. This ensures optimal flow, an absolute precondition for adequate video quality. The advantages of LP-TUR over high-pressure irrigation (HP-TUR) are well known [4, 7,

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12, 18, 19, 24]. In the case of transurethral resection of large adenomas (estimated weight exceeding 70 g), intraoperative autotransfusion may be carried out if necessary [6].

We use the following apparatus for video TUR:

- A 33-cm monitor (Sony PVM 1442)
- A steering device
- A high-intensity 400-W halogen light source with electronic brightness regulation via video signal
- A VHS video recorder

The apparatus is accommodated on a specially designed cart (Fig. 1). Our power source is an Erbe generator (Erbotom ACC 430 no. A 1013).

![Fig. 1. Video apparatus on specially designed cart](image)