Urethral Stricture after Transurethral Resection

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After 101 transurethral resections, iatrogenic postoperative urethral strictures have occurred in 10 cases due to pathologic changes in the bladder and bladder neck. Urethral stricture after transurethral resection (TUR) thus has represented the most common postoperative complication. No morbidity increase of urethral strictures after TUR could be demonstrated in one of the analysed groups. Fifty per cent of the incidence rate of strictures was localized in the pars pendulans urethrae.

Factors causing the stricture have been demonstrated, and the incidence rate of strictures was reduced when these factors were taken into consideration. Preference is given either to conservative or surgical therapy depending on the localization of the stricture, even though endoscopic methods are used more frequently now in the treatment of stenoses of the urethra.

The first transurethral resection instrument was designed in 1930 by Stern McCarthey. Subsequently transurethral prostatectomy became the method of choice in Germany in the forties, since the resectoscope had been improved by Mösel and Wolf, and conventional surgical methods were relegated to the background. Importance is thus increasingly attached to the complications occurring after transurethral resection (TUR).

Intraoperative and postoperative complications should be differentiated: intraoperative acute emergency situations are presented by urethral lesions of the via falsa, perforations of the prostatic capsule, bladder perforations, arterial or venous haemorrhage or the so-called water syndrome. In addition to the less common concealed late extravasations described by Matz [3], in particular the iatrogenic urethral strictures after TUR were indicated as postoperative complications estimated at 8 to 12 per cent on the average in the literature. This has induced us to examine a number of patients treated at the Urological Clinic, Medical Academy, Erfurt, for urethral strictures after TUR.

Results

From 1978 to 1980 we performed 174 transurethral resections. Figure 1 shows an annual increase in the number of TUR. Due to the arbitrary time limit, and in consideration of the fact that only male patients were involved, a total of 101
patients were included in the follow-up examination after TUR. As indicated in Table 1, 10 per cent of these resected cases had urethral strictures. No increase in the incidence rate of strictures has been noted in any of the groups. Most of the TUR were performed in the age groups of 60 and 70 years (Fig. 2). The strictures were found mainly in the pars pendulans urethrae or were multilocular, whereas other sites of predilection such as the meatus and the prostatic part of the urethra were affected in one case each (Table 2).

Finally, we checked our patients for any correlation between secondary or multiple TUR and a possible increase in the incidence of strictures. In concordance with Meissner and Thiel [4], we found that the morbidity rate of strictures after TUR performed once was analogous to that in patients transurethrally resected twice. From this we conclude that the recurrences of papillomas and adenomas requiring several TUR do not involve a higher risk of an urethral stricture.

Fig. 1. Annual rise of resections in the period 1978–1980

Fig. 2. Statistical comparison of TUR with the age of patients