EW2 : エンドウロロジー ワークショップ 2 「腎盂、尿管鏡下手術」**司会のことば**

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Advances in ureterorenoscopy have made its applications effective and safe in the treatment of urolithiasis and ureteral stricture. Endourological techniques, such as transurethral ureterolithotripsy established its position in the management of ureteral and kidney stones, as evidenced by JUA, AUA and EUA clinical stone guidelines. Nowadays balloon dilatation and laser and cold ureterotomy are the first line modality to treat ureteral stricture.

More recently endourology extends the forefront to oncological fields. The oncological application of ureterorenoscopy began initially as a diagnostic tool in the upper urinary tract lesion, which is indistinguishable from malignancy by the conventional image modalities. Next, it is used as the treatment modality as a less invasive alternative.

Advances in ureterorenoscopy have been brought about by three factors : first is a miniaturization of ureteroscopes ; second are advances in the techniques of ureteroscopy ; and third are developments in accessory equipment such as laser lithotriptors and forceps applicable to the miniaturized endoscopes.

Papers in favor of endourology will be presented and discussed.

EW2-1**Indication and limitation of pyeloureteroscopy to upper urinary tract diseases**

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Pyeloureteroscopy is indicated for the diagnosis and treatment of the upper urinary tract diseases, such as upper urinary tract stone, urothelial tumor, and congenital and acquired stenosis of the upper urinary tract. In patients with urinary diversion such as ileal conduit, continent neobladder, and pouch reservoir following malignant and benign urological conditions and in patients with severe lower urinary tract obstruction due to urethral, prostatic, or bladder diseases, endoscopic approach to the upper urinary tract may be anatomically impossible. Holmium laser is currently the ideal standard device for treatment of such urological diseases, but the prevalence of this device in Japanese hospitals is still limited mainly because of the cost. Disposable equipment may also be an obstacle to hospital profits under the current medical circumstances.

Treatment of upper urinary tract stone with pyeloureteroscopy is currently well performed ; nevertheless there remains a limitation in the success of treating stones in the lower calyces and stones with strictures in the draining tract. Treatment of urothelial tumors in the upper urinary tract remains controversial and currently needs to be limited to small noninvasive tumors, but accurate presurgical diagnosis of tumoral microinvasion is often difficult. Additionally, follow-up endoscopy of the upper urinary tract is not as convenient as cystoscopy at the outpatient clinic level. Other diagnostic imagings like CT, MRI, sonography, and retrograde pyeloureterography as well as urine cytology may not replace endoscopic examination for detection of small tumor recurrence in the upper urinary tract. Endoscopic treatment of strictures with limited length in the upper urinary tract have been successful, but the procedure often fails when the length of the stricture is relatively long and when fibrosis in or outside the upper urinary tract is remarkable, leading to re-stricture. Thus, open surgical techniques are finally required. In conclusion, pyeloureteroscopy is a powerful tool for the treatment of upper urinary tract diseases if applied to well-selected cases.