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VARIETY OF THE CONGENITAL URETHRAL LESIONS IN BOYS WITH LOWER URINARY TRACT SYMPTOMS AND RESULTS OF ENDOSCOPIC TREATMENT

Hypothesis / aims of study
We described various types of congenital urethral anomalies seen in school boys with lower urinary tract symptoms (LUTS) such as refractory enuresis. Their urethrographic and endoscopic finding were reviewed and the effect of endoscopic incision was analyzed.

Study design, materials and methods
We evaluated 67 boys with a mean age of 9 years, who had LUTS, in the period of 3.5 years. Voiding cystourethrography (VCUG) was performed in a total of 37 patients. For 17 patients who were judged as having urethral abnormality on VCUG, endoscopy was performed. Congenital urethral obstruction was diagnosed from VCUG and endoscopic findings, and classified into Type 1, 3 (= Cobb's collar) and 4 posterior urethral valve (PUV) according to Douglas Stephens' description. Trans-urethral incision (TUI) was carried out for congenital urethral obstruction, and the effect was judged within at months after operation.

Results
Of 37 patients who underwent VCUG, 17 patients (17/37: 45.8%) had abnormal urethral configuration. Endoscopically, 9 patients (9/37: 24.3%) were diagnosed as PUV, which were classified into Type 1 PUV (2 patients), both Type 1 + Type 3 PUV (2 patients), Type 3 PUV (4 patients), Type 4 PUV (1 patient). The effect of TUI in PUV excluding Type 3 was 80%, while that in Type 3 PUV was 25%. Classification and improvement rate revealed Table1.

Interpretation of results
The incidence of congenital urethral lesion in posterior urethra compared to bulbar urethra was significantly different from those described in previous Japanese literature, but similar to other countries. The reason is thought to be the lack of standardized interpretations of VCUG images and endoscopic findings, resulting in overestimation of the presence of bulbar urethral narrowing. The effect of TUI for such lesion was worse than have ever been described in previous reports regarding Type 3 PUV or bulbar urethral narrowing.

Concluding message
The incidence of PUV in boys with LUTS was higher than had ever been described in Japanese literature in the past. The improvement rate by endoscopic incision was high in PUV excluding Type 3, but low in Type 3 PUV (= Cobb's collar). The ring like strictures at membranous or bulbous urethra may be less important than have ever been thought.

classification		improvement rate	
PUV			
type 1	2	2 / 2	
type 1+ type 3	2	1 / 2	**4 / 5 (80%)**
type 4	1	1 / 1	
			5 / 9 (56%)
Type 3 PUV			
or Cobb's collar	4	1 / 4	**5 / 16 (31%)**
Subnormal	8	0 / 7	

total 17

Table 1

References
1) Congenital anomalies of the urinary and genital tracts second edition; Isis Medical Media Ltd, 2002 (91-116)
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HUMAN SUBJECTS: This study did not need ethical approval because it was not a clinical trial. but followed the Declaration of Helsinki Informed consent was obtained from the patients.