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THE TREATMENT OF VESICO-URETERIC REFLUX WITH POLYDIMETHYLSILOXANE (MACROPLASTIQUETM) IN PATIENTS WITH SPINAL CORD INJURY: LONG-TERM FOLLOW-UP

Hypothesis / aims of study

Vesico-ureteric reflux (VUR) is one of the potential complications of patients with a neurogenic bladder in spinal cord injured patients. Persistent VUR can result in progressive renal damage and can ultimately lead to renal failure. Endoscopic management of vesico-ureteric reflux has gained popularity because of its lower complication rates and easier application than of open surgical procedures. The aim of the study is to evaluate the long-term efficiency of polydimethylsiloxane (PDS, MacroplastiqueTM) sub-ureteric injection in the endoscopic management of (VUR) in patients with spinal cord injury (SCI).

Study design, materials and methods

Sixty seven patients with SCI underwent sub-trigonal injection (STING) of polydimethylsiloxane for VUR treatment with different grades I-IV between 1995 and 2005. 15/67 (22.5%) patients had bilateral VUR and 52/67 (77.5%) had unilateral Reflux with total of (82 renal units). According to International Reflux Classification; grade I was in 33 (40.2%), grade II in 28 (34.2%), grade III in 20 (24.4%) and grade IV in 1 (1.2%) ureteral units were found. (mean age: 50.1 years; range: 32—79 years). 80% of patients are males (4:1). Mean time from injury to develop VUR was 3.5years (0.4-9 years). A single surgeon at a specialist spinal injury centre managed all patients. video-cystometrograms (VCMG) were performed preoperatively and at 3 month post op and then on an annual base. Reapeted injections were done to archive success when the reflux was persistent.

Results and Interpretation of results

Complete remission was found in 50/82 (61%) of ureteral units. 24/33(72.8%) patients with VUR grade I were treated with a single injection of PDS with complete success. 10/28(35.7%) patients with VUR grade II had failed. Grade III 12/20(60%) failed; whereas, Grade IV failed Sting and patient underwent CLAM cystoplasty.
Detrusor pressure did not play any role in causing the reflux with mean MDP (range) 32 Cm H2O (7-102) before reflux and mean MDP (range) 28 CmH2O (3-82) after P= 0.005.

Concluding message

There are favourable outcomes for low grade VUR with the sub-Trigonal injection of polydimethylsiloxane (PDS,MacroplastiqueTM) .

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Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require ethics committee approval because	**No need**
Was the Declaration of Helsinki followed?	**No**
This study did not follow the Declaration of Helsinki in the sense that	**No Need.**
Was informed consent obtained from the patients?	**Yes**