PROBLEMS WITH INDWELLING URETERAL STENTS WITH SPECIAL REFERENCE TO LITHOTRIPSY

Pages with reference to book, From 143 To 144

Sir,

A retrospective review of 1269 patients treated at the Karachi Kidney Stone Clinic during the period 01-12-88 to 01-12-89 was carried out. Of these 623 patients received indwelling ureteral stents under intravenous anesthesia, with fluoroscopic control by the same operator. Polyurethane stents were used uniformly. The largest caliber used was 7 French and the smallest 4.7. The longest length used was 26cms and the shortest 20cms. The length is gauged by measuring the ureteral length on the intravenous pyelogram and adding one centimeter to this. Our indications to insert these stents were a stone burden exceeding 2.5 cms, a solitary kidney, to create an expansion space to facilitate pulverisation, to bypass obstruction to relieve hydroureter and bydronephrosis and to prevent closure of the ureter by steinstrasse. The problems identified and the therapy undertaken are as follows: (1) Pain: This was the commonest symptom and in 20 patients the stent had to be removed. The remainder tolerated their stents for the duration of lithotripsywith the help of antispasmodics. The reasons for the pain are twofold- vesicoureteric reflux and irritation of the trigone of the urinary bladder. (2) Stent Migration: This can take place cranially towards the renal pelvis making the stent impossible to remove cystoscopically, or it can migrate caudally into the bladder. We had a single patient in each category. Ureterorenoscopy and cystoscopy were employed respectively to remove the stent. (3) Stent Calcification: This was seen (a) as a heavy encrustation on all stents which had remained in situ exceeding three months and (b) as actual stone formation and calcification of the vesical loop of the Double J stent. The former was identified in 68 stents inserted and the latter was seen in a single instance. In the latter instance the distal end actually broke and was removed by a combination of cystoscopy, electrohydraulic lithotripsy and antegrade percutaneous removal with a nephroscope. (4) Stent Blockage: This was due to pressure from the steinstrasse. This was seen in two patients. The first had a solitary kidney and deteriorating renal function tests warranted a percutaneous nephrostomy, and stent removal. The steinstrasse passed spontaneously in four weeks. The other patient presented with backpressure symptoms which were confirmed on KUB X Ray and intravenous pyelogram. A percutaneous nephrostomy was performed and the stent removed.

In view of our experience we recommend:

Acidification of the urine, changing of the stent every three months, use of small caliber stents upto 5 French, reduce intravesical length and keep patients with close follow up so that migration can be dealt with by antegrade or retrograde removal.

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