

# Vesicoureteral reflux in patients with double pigtail stents.

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## Abstract

A prospective study of 30 renal units in 27 patients with double pigtail ureteral stents seen at our hospital was done. The aim of the study was to confirm or rule out the occurrence of vesicoureteral reflux radiologically, and to define its degree in stented patients. During the filling phase of the cystourethrogram, reflux occurred in 19 of the 30 renal units (63%). Of those 19 renal units the reflux was grade 1/4 in 15 (79%), while in 4 (21%) it was of higher grades (2 to 3/4). During the voiding phase of the cystourethrogram reflux was observed in 24 of 30 renal units (80%). Of those 24 renal units reflux was of high grade (2 to 4/4) in 20 (83%), while it was low grade (1/4) in 4 (17%). In the presence of a double pigtail stent the ureteral peristaltic waves were sluggish and averaged 1 to 2 waves per minute in the 15 patients observed fluoroscopically for 1 minute after voiding. We conclude that in the majority of patients with double pigtail ureteral stents vesicoureteral reflux occurs at a low grade during vesical filling and at a high grade during voiding. Also, the stents adversely affect the ureteral peristaltic activities