IS-4 Surgical Treatment and Outcome of the Mega-hydronephrosis due to Pelviureteric Junction Stenosis

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Aim: To study the surgical treatment and outcome of the patients with mega-hydronephrosis (MH) due to pelviureteric junction obstruction (PUJS). Methods: Hydronephrosis was defined as mega if the medial edge of the affected kidney extended at least to the lateral edge of the contralateral vertebral column. Of the 40 cases of PUJS we treated over the past 5 years, 6 (6 renal units) had MH secondary to PUJS (MH-PUJS) and were reviewed. All had Anderson-Hynes dismembered pyeloplasty. Indications for pyeloplasty were obstructive DTPA scans in 5 and gait disturbance due to in 1. The contralateral kidney was normal in 5 and dysplastic in 1. Preoperatively, renal scintigraphy (RS) showed good renal function in 1, fair in 4 and poor in 1. The dilated renal parenchyma required full-length plication (“nephroplication”) in 3 cases to decrease the intra-renal pelvic cavity. Results: The incidence of MH was 15.0%. Two cases were diagnosed prenatally. Mean age at pyeloplasty was 3.5 years. Mean follow-up period was 1.5 years. Postoperatively, RS was prolonged but non-obstructive in 2 of the 3 cases who did not have “nephroplication”, and the remaining 1 had nephrectomy 2 years after pyeloplasty due to recurrent pyelonephritis leading to non-function kidney. In the 3 who had “nephroplication”, RS showed acceptable to relatively good passage in all. Conclusion: The surgical treatment of mega-PUJS remains challenging. Addition of nephroplication may be useful during pyeloplasty for MH-PUJS.