Partial Nephrectomy for Adenocarcinoma in Paediatric Age Group

Pages with reference to book, From 39 To 41

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Abstract

Partial nephrectomy was performed on a patient of twelve years, having adenocarcinoma of kidney with duplex ureter. The two segments of kidney had independent blood supply. Operation was based on the evidence that if adenocarcinoma is localized to the kidney, then removal of the involved kidney alone is associated with long term survival (JPMA : 34 39, 1 984).

Introduction

Adenocarcinoma of kidney is a rare childhood tumour. Upto 1974 only 84 authentic case reports could be traced in the world literature (Castilanos et aL, 1974). There is documented evidence that if the tumour is localised to the kidney, a nephrectomy is associated with a long term tumour free survival (Marcus and Watt, 1966; Dehner et aL, 1970 ; Aron and Gross, 1969
Manson et al., 1970; Castilanos et al., 1974). Hollabaugh et al. (1976) had performed a hemine-pbrectomy in situ for hypernephroma involving both the kidneys in a ten year old girl.

Case Report

A 12 year old female was seen in June, 1976; with painless haematuria of three months. There was no history of trauma or pyrexia. There had been loss of weight since the onset of haematuria. On examination a palpaole left renal mass was the only positive finding. Her haematological investigations were normal. Mantoux test, G-6-P-D deficiency test and X-ray chest were negative. I.V.P. revealed an enlarged left kidney with duplex ureter. The middle and lower calices were distorted. The upper calix was opening directly into the upper ureter (Fig. 1, 2).

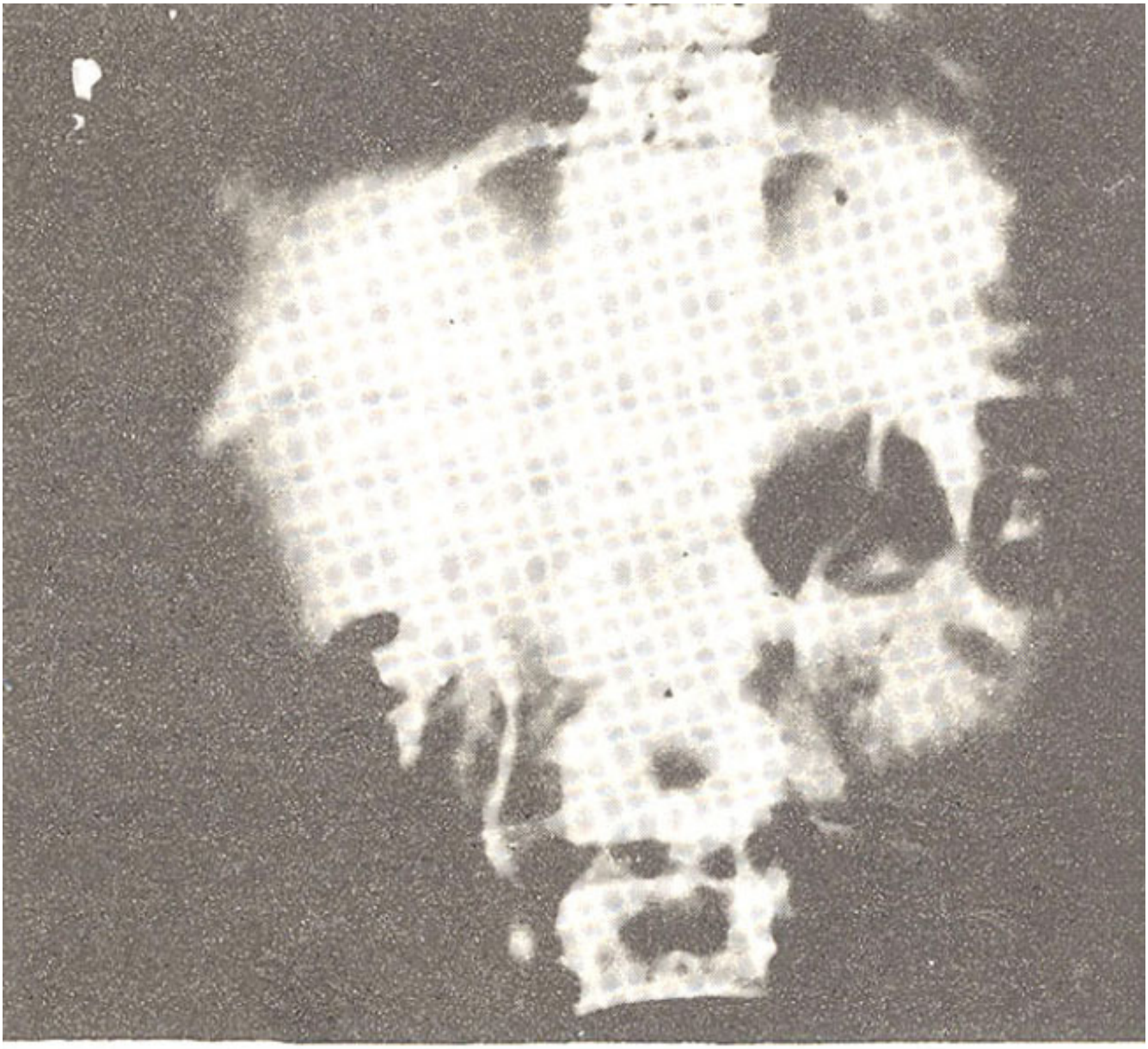

Fig.1 I.V.P. Showing (L) Duplex.

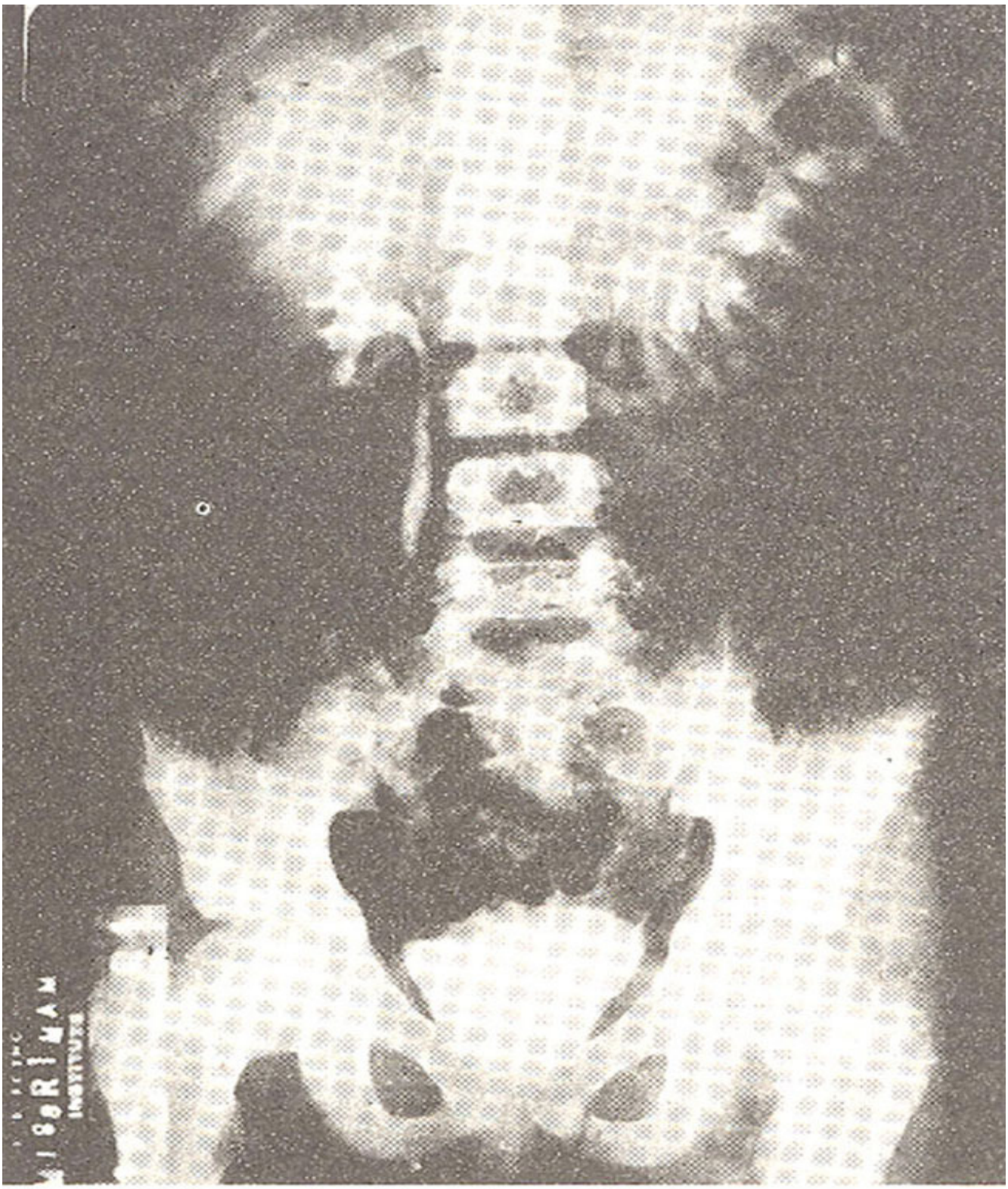

Fig. 2 I.V.P. showing distortion of (L) lower calices.

A scinti scan, revealed a cold area in the middle and lower portion of the left kidney (Fig. 3).

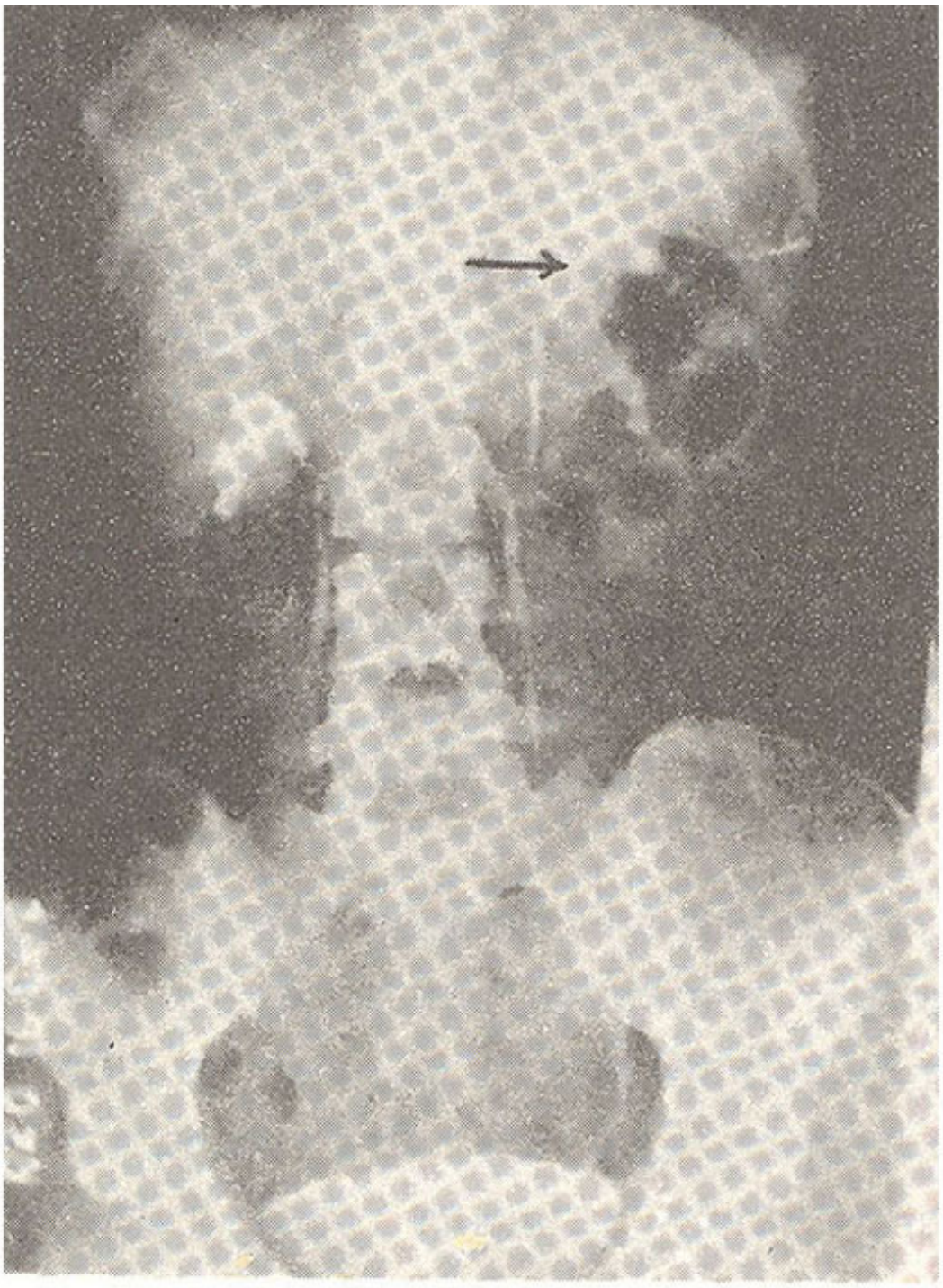

Fig.3 I.V.P. showing stone upper ureter with good escretion in the residual kidney.

A tumour of kidney was suspected with likely diagnosis of carcinoma. Exploration of the left kidney was performed on 30th June, 1976. The left kidney had duplex ureter. A tumour was found occupying the middle portion of left kidney. Para-aortic lymph nodes were not involved. There was an indentation over the surface of the kidney denoting the line of demarcation between upper and lower segments of kidney. The arterial blood supply to the two segments was independent and so was the venous drainage.

There was a margin of about 1 cm. of normal tissue between the tumour and the indentation. A lower 2/3rd partial nephrectomy was performed. Histological examination confirmed the diagnosis of Adenocarcinoma (clear cell, papilary type), which was well encapsulated with enough nnrgin of normal tissue all around. Post operative recovery was uneventful. No radiotherapy or chemotherapy was given. I.V.P. 16 weeks after operation demonstrated a good function in the remaining segment of the left kidney (Fig. 3). She had regular check up since her operation. In January, 1978 she had microscopic haematuria which cleared spontaneously. Further I.V.P. at intervals were normal. In December, 1982 she had another bout of haematuria. On I.V.P. a uretic stone was detected in the left ureter (Fig. 4).

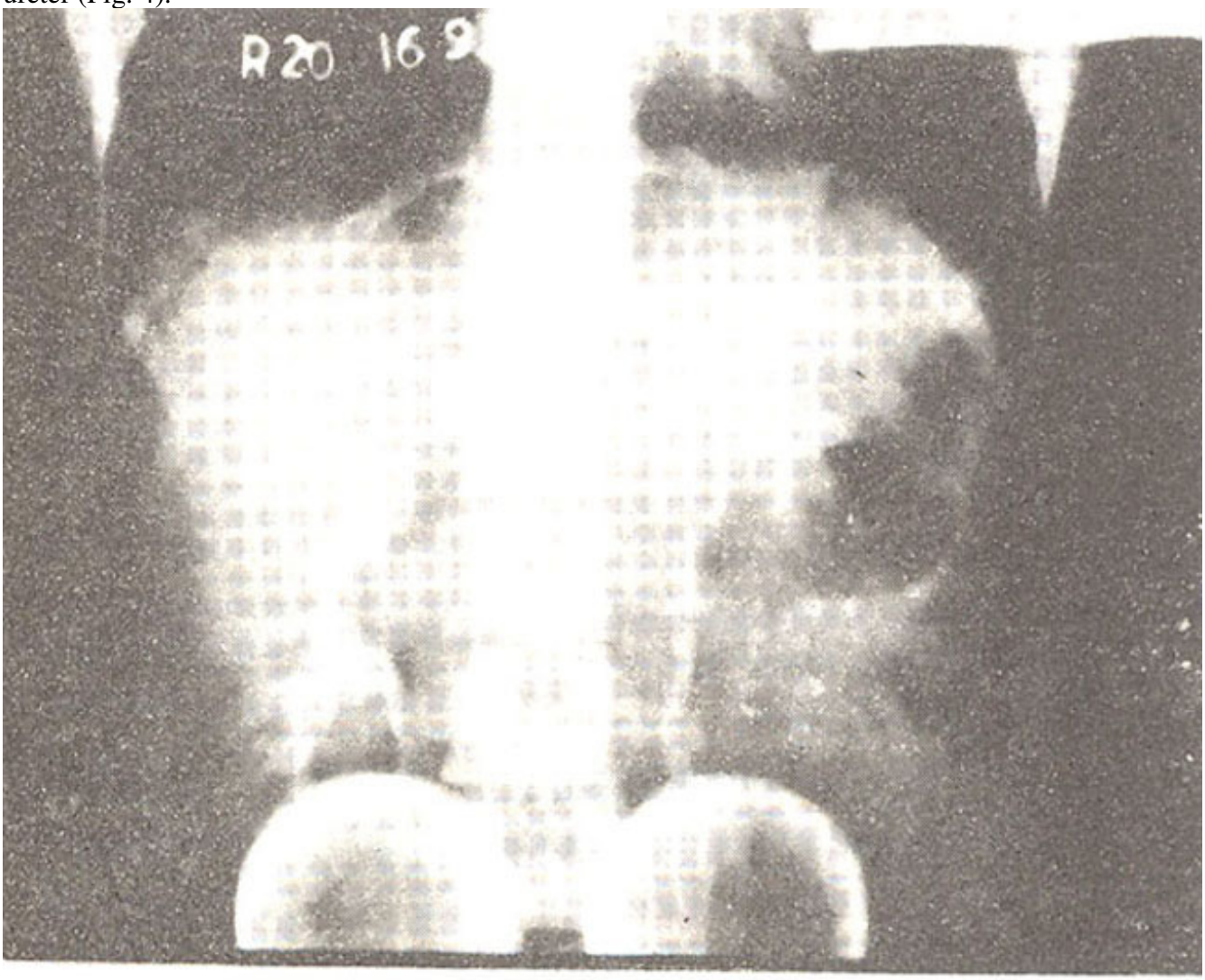

Fig. 4 I.V.P. showing stone at pelvi ureter junction of comparison

The stone however, passed spontaneously, and haematuria ceased. An ultra sound examination of left kidney was normal. There is no evidence of any recurrence on clinical and radiological examination.

Discussion

There is evidence in literature that a nephrectomy for adenocarcinoma, while the tumour is confined to the kidney is followed by prolonged tumour free survival. There are two cases on record, when an

adenocarcinoma had occurred in a kidney with duplex ureter. A nephrectomy was performed on both the occasion, * (Hogan et al., 1957 ; Manson et al., 1970). In one such case the tumour was discovered accidently while performing upper partial nephrectomy for the incontindnce, due to ectopic ureteric opening. A nodule was detected in the lower segment of kidney which was excised and later found to be adenocarcinoma. The remaining kidney was removed at a second operation. There was no evidence of tumour in the remaining kidney. In the case under report the duplex kidney anatomically had two independent components. Partial nephrectomy spared the normal upper segment, while the tumour bearing lower segment was totally excised.

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