

Chapter 14

RENAL VEIN THROMBOSIS

This condition is found most often in infants but 7% are aged more than 1 year at onset. 31% are detected in first week of life and 44% by end of first month. Total 75% cases in neonatal period. Males are affected twice as common as females.

Several cases begin during fetal life. Asphyxia, birth trauma and prematurity are causal factors.

Use of high solute milk to feed babies causes hyperosmolality and renal vein thrombosis.

RVT always begins in small tributaries and spreads to greater vessels such as arcuate veins. Condition may be grave and symmetrical or minor and focal with unilateral distribution. Rarely it spreads to thrombosis of renal vein and thrombosis of inferior vena cava and adrenal veins. Renal venous thrombosis is preferred term.

Presentation is typically in neonate who is anuric or has oliguria and haematuria. Gross metabolic acidosis may be mistaken for respiratory infection. History of loose stools is common. One or both kidney is enlarged or palpable in about 60% cases. High blood urea is constantly present. Thrombocytopenia is rule and FDP found in excess in plasma together with burr cells and low level of factor 5.

Older child may develop condition in association with other illness or trauma, particularly angiocardigraphy in cyanosed child. Precipitating factor in angiocardigraphy may be when large volume of hypertonic contrast medium is used. Radiological proof of nonfunctioning kidney is useful. Ultrasonographic definition is possible.

Contrary to adult life it is very rare for renal venous thrombosis in child to be associated with production of nephritic syndrome. Occurance of thrombosis is increased in patients with idiopathic nephrotic syndrome. Renal vein thrombosis may complicate this condition in child.

TREATMENT

Bilateral complete renal venous thrombosis giving rise to uraemia requires urgent dialysis and later renal transplantation.

When one kidney is grossly affected other is likely to be affected if only to minor degree. In such cases heparin therapy is indicated in dosage of 100 units per kg stat and thereafter 25 units per kg per hour by intravenous infusion to maintain capillary clotting time marginally prolonged. Following unilateral renal venous thrombosis affected kidney may act as Goldblatt kidney and produce severe hypertension damaging sole remaining healthy kidney. Such nonfunctioning kidney should be removed when infant is 6-8 months old.

□