

Editorial

RENAL CARCINOMA

Epithelial cancer of the kidney has been commonly known as Hypernephroma or Grawitz tumour. The renal cell carcinoma is the most common malignant tumour of the kidney (Bennigton 1973). The origin of the tumour has remained uncertain until recently and now it is accepted that the tumour arises from the proximal convoluted tubules (Sun et al., 1977). Usually the tumour consists of clear or granular cells. Better survival is reported in patients with clear cell tumour (Murphy and Mostofi, 1965).

Early symptoms in renal cancer are not characteristic but haematuria, loin pain and a mass may occur. The presence of all three indicate advanced disease. Other symptoms such as weight loss, weakness and anaemia may be present in about one-third (Melicow and Uson, 1960). Hypertension, cardiac failure due to massive arterio-venous fistulae within the tumour, priapism, varicocele and toxic manifestations have also been reported (DeWeerd, 1965; Chisholm and Roy, 1971). The endocrine disturbances associated with renal carcinoma resulting in endocrinopathies are now well known and can produce various syndromes.

The diagnosis is usually made on radiological examination although history and physical examination play an important role. Intravenous pyelogram usually shows a mass in the kidney with distortion and elongation of the calyces. Tomography may be useful in some cases with small lesions (Greene et al., 1976). Ultrasonography has been used successfully to differentiate fluid from solid masses (Babaian et al., 1976). Selective renal angiography has become an important addition to the diagnostic procedures and depends on the abnormal vasculature within the tumour. Even small tumours will exhibit tumour vessels and it is possible to detect minute abnormalities in the vessels not visualised with less specific techniques. Selective angiography will also provide information about involvement of renal veins and inferior vena cava and hence the surgical approach can be planned accordingly.

The treatment of choice for renal cell carcinoma is nephrectomy. Radical nephrectomy where renal pedicle is ligated initially to prevent tumour emboli from spreading, removal of entire perinephric fat and regional lymph nodes has improved the survival rate (Grabstald 1969) without increasing the morbidity and mortality (Middleton and Presto, 1973). Thoraco-abdominal approach for such procedure provides adequate exposure and ease to deal with various problems

(Bissada 1977). The results of nephrectomy in patients with metastatic disease remains controversial although nephrectomy is done in patients with a resectable solitary metastasis (Kaufman et al., 1968). The results of radiotherapy and chemotherapy either in conjunction with surgery or alone have been disappointing (Bissada 1977).

Prognosis of renal cell carcinoma depends upon the extent of tumour, involvement of regional lymph nodes, invasion of renal veins and inferior vena cava and the mode of therapy and host factors (Blath et al., 1976; Cole et al., 1974; Ravitz et al., 1972). The five year survival reported by Riches (1958) was 50 per cent. Improved survival rates have been reported with radical nephrectomy (Cole et al., 1974; Middleton and Presto, 1973). The rate of survival in patients with multiple metastasis is higher than those with solitary metastasis (Lokich and Harrison, 1975).

References

- Babaian, R.J., Fried, F.A., Cole, A.T. and Staab, E.V. (1976) The role of ultrasonics in the evaluation of renal masses. *J. Urol.*, 115:646.
- Bennigton, J.L. (1973) Proceeding: Cancer of the kidneys., etiology, epidemiology and pathology. *Cancer*, 32:1017.
- Bissada, N.K. (1977) Renal cell adenocarcinoma. *Surg. Gynec. Obstet.*, 145:97.
- Blath, R.A., Mancilla-Jinenez, R. and Stanley, R.J. (1976) Clinical comparison between vascular and avascular renal cell carcinoma. *J. Urol.*, 115:514.
- Chisholm, G.D. and Roy, R.R. (1971) The systemic effects of malignant renal tumours. *Br. J. Urol.*, 43:687.
- Cole, A.T., Fried, F.A. and Bissada, N.K. (1974) The supine subcostal modification of the thoraco-abdominal incision. *J. Urol.*, 112:168.
- DeWeerd, J.H. (1965) Arteriovenous fistula in hypernephroma. *J. Urol.*, 93:666.
- Grabstald, H. (1969) Renal cell tumours. *Surg. Clin. Nor. Am.*, 49:337.
- Greene, L.F., Fraser, R.A. and Hartman, G.W. (1976) Bolus nephrotomography in diagnosis of lesions of kidney. *Urology*, 7:221.
- Kaufman, J.J., Chaffay, B.T. and Goodwin, W.E. (1968) Renal cell carcinoma in the solitary kidney; report of six cases. *Br. J. Urol.*, 40:12.
- Lokich, J.J. and Harrison, J.H. (1975) Renal cell carcinoma; natural history and chemotherapeutic experience. *J. Urol.*, 114:371.
- Melicow, M.M. and Uson, A.C. (1960) Nonurologic symptoms in patients with renal cancer. *JAMA.*, 172:146.
- Middleton, R.G. and Presto, A.J. (1973) Radical thoraco-abdominal nephrectomy for renal cell carcinoma. *J. Urol.*, 110:36.
- Murphy, G.P. and Mostofi, F.K. (1965) The significance of cytoplasmic granularity in the prognosis of renal cell carcinoma. *J. Urol.*, 94:48.
- Ravitz, G., Watne, A.L. and Milam, D.F. (1972) Autoantibodies to human renal cell Carcinoma. *J. Urol.*, 107:26.
- Riches, E.W. (1958) Factors in the prognosis of carcinoma of the kidney. *J. Urol.*, 79:190.
- Sun, C.N., Bissada, N.K., White, H.J. and Redman, J.F. (1977) Spectrum of ultrastructural patterns of renal cell adenocarcinoma. *Urology*, 9:195.