Appendix A

جامعة السودان للعلوم والتكنولوجيا
كلية الدراسات العليا
Sudan University of Sciences and Technology
College of Graduate Studies

Data Collection sheet

A) Patient's data

Gender ☐ Male ☐ Female ☐
Type of DM ☐ Type 1 ☐ Type 2
Duration ☐ DM .1

B) Ultrasound findings

Renal measurement
I. Tranverse diameter
II. Longitudinal diameter

Renal parenchyma echogenicity compared to liver echogenicity
I. Normal ☐ II. Hyper ☐

Renal cortico-medullary differentiation
I. Normal ☐ II. Poor differentiation ☐

C) Laborotory findings

Urine general
I. Hematuria ☐ II. Pyuria ☐ III. Proteinuria ☐

Blood glucose level
I. > 200 mg/ml ☐ II. < 200 mg/ml ☐
Appendex B

Figure (B.1)  a, b Normal right kidney (K). L = liver, MP = hypoechoic medullary pyramids, C = renal columns

Figure (B.2) Decreased renal size in pyelonephritis (83.9mm, cursors): Foci of parenchymal thinning due to scarring, = flat cyst. Fine-needle aspiration of a suspected abscess p adrenal epithelium
Figure (B.3). Comparison of renal ultrasound appearance of a right kidney from a normal subject (A), the right kidney from a patient with diabetic nephropathy and end-stage renal disease about to begin chronic maintenance haemodialysis (B).

Figure (B.4) (A) Acute renal failure demonstrating an enlarged, diffusely hyperechoic kidney with loss of corticomedullary differentiation. (B) Acute renal failure in paracetamol overdose. The kidney is large (16 cm) and hyperechoic with increased corticomedullary differentiation. (C) Chronic renal failure. The kidney is shrunken with only a thin rim of cortical tissue remaining. The cortical rim may be of normal echogenicity (i) or hyperechoic (ii). The latter situation is more common.
Figure (B.5). a,b a Acute prerenal renal failure in a patient with severe vomiting and alcohol disease. The kidney (K) is markedly enlarged to a longitudinal diameter of 15 cm. The parenchyma is thickened and hypoechoic, with swollen medullary pyramids. b Gouty nephropathy; small kidney with elevated echogenicity, swollen pyramids and a secondary lyst (arrow)