physical examination, her abdomen was tender in the left iliac fossa with no signs of peritonism. The abdominal film was unremarkable. Abdominal ultrasound showed an ilio-colic intussusception (Figure 1).

She remained clinically and biochemically nephrotic at this time. She entered the remission phase of nephrotic syndrome between Days 7 and 10 after the initiation of therapy which coincided with the complete resolution of her abdominal pain.

Gastrointestinal disturbances are frequently encountered in the course of nephrotic syndrome. The differential diagnosis considered included renal vein thrombosis, peptic ulcer disease and subacute bowel obstruction.

Fortuitously, at the time of ultrasonography, the patient developed an episode of colicky abdominal pain, and the intussusception could be demonstrated.

Ultrasonography is the diagnostic tool of choice to detect intussusception, although it can be operator dependent or limited by body habitus.

Intussusception causes ‘telescoping’ of the bowel due to a lead point in the bowel, which in this case is due to incoordinate gut motility and bowel wall oedema.

Intussusception is not infrequently described in the paediatric literature, but the usual cause in adults is secondary to a bowel tumour, which acts as a lead point for the invagination of the bowel [2]. Treatment of the underlying nephrotic syndrome resulted in resolution of the intussusception without the need for any intervention [3,4]. Infusions of albumin have also been described [5].

We conclude that nephrologists should consider intussusception in the differential diagnosis of abdominal pain in the setting of nephrotic syndrome as early recognition may improve prognosis.

Conflict of interest statement. None declared.

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Early hydronephrosis developing within the first year occurs in 10–20% of patients following surgical graft repair of AAA. The most probable cause for this is mechanical due to the compression of the ureter against the native iliac artery from the anteriorly placed graft [2].

In a prospective study of 101 patients who underwent aortofemoral and aortoiliac reconstructive surgery, 12% of patients developed mild to moderate hydronephrosis. All patients were asymptomatic, and the obstruction resolved spontaneously in 10 of 11 patients within 3 months of onset.

The incidence of delayed hydronephrosis occurring 1 year or more post surgical repair is unknown. This complication may be relatively common after reconstructive vascular surgery as in our patient, especially in association with infected grafts [3].

The long time interval is unusual and suggests perhaps a different mode of inflammatory pathways compared to what is commonly seen in early obstructive uropathy associated with surgical graft repair of AAA. More research is needed to elucidate the mechanisms underlying chronic periaortitis [5].

Conflict of interest statement. None declared.

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doi: 10.1093/ndtplus/sfq110

Advance Access publication 24 June 2010

Validity of haemoglobin A1c and glycoalbumin for an appropriate evaluation of glycaemic control in Japanese diabetic patients with chronic renal failure

Sir, Although the validity of glycoalbumin (GA) instead of haemoglobin A1c (HbA1c) measurement in patients on haemodialysis (HD) has recently been discussed by some investigators [1,2], an appropriate indicator for glycaemic control in patients with pre-dialysis chronic renal failure (CRF) has only rarely been reported [1]. The application of erythropoietin (EPO) for the treatment of renal anaemia increases the proportion of young erythrocytes over old erythrocytes in peripheral blood [3], and HD procedure per se causes the mechanical destruction of red blood cells (RBC). These conditions may reduce the half-life of HbA1c. On the other hand, GA is affected by an accelerated turnover of albumin in the case of nephrotic syndrome frequently observed in pre-dialysis patients due to a massive loss of protein into the urine [2]. The aim of the present study is to evaluate the validity of both indicators in Japanese patients with diabetes separately according to their CRF stage, either undergoing HD or not and either being treated with EPO or not.

Methods

Four hundred and seventy-five patients with diabetes (279 males, 33 type 1 diabetes, 63 ± 13 years old, mean ± SD) were enrolled from November 2007 to June 2009 at Kurume University Hospital and Ito Clinic, in which 97 were treated with maintenance HD (Group HD, no haemodialysis filtration), 112 had impaired renal function with their serum creatinine (S-Cr) levels >1.2 mg/dL in male and 0.9 mg/dL in female subjects (Group RD), and 266 had normal renal function (Group N). Estimated GFR (eGFR) was calculated according to the formula modified by the Japanese Society of Nephrology in 2008 [eGFR for male = 194 × S-Cr−1.094 × age−0.283 × 1.21 for females].

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