

## Egg Shell Calcification of Failed Kidney Allografts Unusual Appearance on Computed Tomography

IJKD 2010;4:111  
www.ijkd.org



A 32-year-old man with graft loss due to chronic rejection received a 2nd kidney allograft from a living donor in the left iliac fossa, while the 1st was left in the contralateral side. An episode of acute rejection occurred at 1 month, resolved by steroid therapy. The 2nd allograft developed chronic allograft nephropathy, resulting in graft failure after 30 months of retransplant. Contrast-enhanced computed tomography showed small contracted native kidneys. Failed renal allografts in the iliac fossa were seen as soft tissue attenuation masses with peripheral rim calcification (egg shell calcification) and loss of normal renal architecture. Ascitis was also present. Coronal reformation showed the failed allografts and intraperitoneal fluid in the perihepatic space and right paracolic gutter.

Failed kidney allografts are often remained in the body. These organs should be evaluated for allograft position, size, shape, attenuation, cyst formation, or calcification.<sup>1</sup> They are usually small and can demonstrate associated fatty replacement, hydronephrosis, infarct, hemorrhage, and punctuated or dense calcification. Calcification is likely to be a late finding and associated with prior immunosuppression with cyclosporine.<sup>2</sup> Calcification can be either punctuated or amorphous. To our knowledge, typical peripheral egg shell calcification, as seen in our patient, has not been described before. Failed kidney allografts must be differentiated from pelvic tumors, and in cases of dense calcification, from contrast material-filled bowel, and they should not be mistaken for organized collection or hematoma if they display rim calcification.

S Zafar Abbas,<sup>1</sup> Rehan N Khan<sup>2</sup>

<sup>1</sup>Department of Radiodiagnosis, Dr RML Hospital and PGIMER, New Delhi, India

<sup>2</sup>Department of Surgery, All India Institute of Medical Sciences, New Delhi, India

E-mail: szabbas1@yahoo.co.in

### REFERENCES

1. Daly BD, Goldberg PA, Krebs TL, Wong-You-Cheong JJ, Drachenberg CI. End stage renal transplant failure: allograft appearances on CT. *Clin Radiol.* 1997;52:849-53.
2. Sebastia C, Quiroga S, Boye R, Cantarell C, Fernandez-Planas M, Alvarez A. Helical CT in renal transplantation: normal findings and early and late complications. *Radiographics.* 2001;21:1103-17.