A novel technique for sealing de-roofed renal allograft cysts

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It is common practice to de-roof cysts in renal allografts at the time of transplantation. We describe the use of purified bovine albumin serum and glutaraldehyde surgical adhesive (BioGlue; CryoLife Inc., Kennesaw, GA, USA) to seal the renal cortex and fill the potential space left by the cyst, thus preventing bleeding or urinary leak. Tissue glues have previously been described for cyst management, but this particular material is commonly used in cardiac and vascular surgery and its use has not been described in this patient population.

Technique

In five cases at our centre, cysts from donor kidneys were de-roofed (Figures 1 and 2). The cavities were filled with BioGlue until they were flush with the edge of the cortex, and then allowed to dry (Fig 3). Haemostasis was confirmed, and the kidney was subsequently transplanted in a standard fashion. No additional electrocautery or haemostatic agents were required.

Discussion

The use of BioGlue in sealing de-roofed renal allograft cysts is a safe, effective and uncomplicated technique. BioGlue is advantageous

Figure 1 Renal allograft cyst

Figure 2 De-roofed renal cyst

Figure 3 Cystic space filled with BioGlue

compared to other methods due to the speed of achieving haemostasis intra-operatively, even in large cysts (>4 cm) diameter.

It does not displace once applied, does not damage the cortex on application, and we have not encountered any postoperative complications. It is important to note, however, the site of the BioGlue for follow-up imaging and surveillance biopsies.