CASE REPORT

Recruitment of renal transplant patients into patrolling police roles using orthotic shields

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SUMMARY

Renal allografts are transplanted to an anatomically unnatural site where they are exposed to trauma, and may fail if damaged. Individuals with renal allografts have been excluded from patrolling police roles as these often necessitate confrontation. We describe two patients with renal allografts who have been recruited by the Metropolitan Police Service, using bespoke orthotic shields to protect the grafts.

BACKGROUND

Renal allografts are transplanted to an anatomically unnatural site where they are exposed to trauma, and may rupture or fail if damaged.^{1–5} Individuals with renal allografts are usually advised to avoid contact sports.^{6–7} They have been excluded from patrolling roles within the police service as these roles often necessitate confrontation. Professional sportsmen with renal transplants can participate at the international level (Ivan Klasnic,⁸ Croatian footballer) by protecting the kidney with a purpose fitted orthotic shield. Exceptionally, Jonah Lomu's allograft was placed in the thorax to protect it if he returned to playing rugby.⁷ This is not a retrospective option.

We describe two individuals with renal allografts accepted into the Metropolitan Police Service (MPS) with the provision of orthoses, as a reasonable adjustment under the Equality Act (2010).

CASE PRESENTATION

Case 1

The patient applied in 2009 at the age of 37 for the role of police community support officer (PCSO).

He had functional bladder neck obstruction with renal impairment since 1996 and end-stage renal failure since 2002. He had significant problems while he was on peritoneal and haemodialysis, largely due to difficulties with the peritoneal dialysis catheter and the haemodialysis arteriovenous fistula. He received a cadaveric transplant in September 2006. He developed erythrocytosis needing intermittent venesection after the transplant.

When interviewed by the recruitment medical officer as part of the application process, he advised her of top level sportsmen with transplanted kidneys. After research, the medical officer identified the use of orthotic shields and a suitable provider. This was authorised by MPS management as a reasonable adjustment under the Equality Act (2010), and the patient was duly fitted with a bespoke shield. This is worn in a pocket in special undergarments (figure 1).

Figure 1 Special underwear and orthotic shield used to protect transplanted kidney when on duty.

Owing to his prolonged period of ill-health prior to transplant, the patient took 8 months to reach the required standard of fitness to pass the job-related fitness test needed for entry. He was supported by the MPS fitness training team to achieve this standard. He entered the MPS as a PCSO in March 2010.

His renal function has deteriorated since 2012, and he is currently being assessed for peritoneal dialysis and another transplant. However, he continues in the PCSO role. His current medication is tacrolimus 3 mg in the morning/2 mg at night, aspirin 75 mg once daily, losartan 100 mg once daily, cinacalcet 30 mg once daily, prednisolone 5 mg once daily, bisoprolol 2.5 mg once daily, alacalcidol 0.25 µg once daily and doxazosin 4 mg once daily.

Case 2

The patient applied in 2011 at the age of 39 for the role of metropolitan special constable (MSC), a volunteer position with the powers and responsibilities of a police officer.

He was first diagnosed with IgA nephropathy by renal biopsy in 2000. He subsequently presented with advanced renal impairment with malignant phase hypertension in 2007. He was also found to have significant aortic regurgitation on echocardiogram. He was very briefly on peritoneal dialysis and then transferred to haemodialysis 3 weeks later. He underwent tissue aortic valve replacement in November 2007. He continued dialysis until he received a cadaveric renal transplant in March 2009. After a slightly stormy postoperative course initially, he has remained well with stable graft

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function, normal inflammatory markers, satisfactory ciclosporin levels and no proteinuria.

He had maintained his fitness level post-transplant, and was able to pass the job-related fitness test at the first attempt. He was fitted with a shield over the kidney, provided by the MPS.

He was able to carry out the MSC role successfully and carried out a variety of roles including public order. He progressed to the post of police officer, entering probation in 2013. His current medication is aspirin 75 mg once daily, Calcichew D3 Forte two tablets, atorvastatin 10 mg once daily, prednisolone 5 mg once daily, ramipril 10 mg once daily, MMF 1 g twice daily and ciclosporin 150 mg twice daily.

DISCUSSION

There are a number of obstacles to the recruitment of individuals with late-stage renal failure to patrolling roles within the police.

Patients on renal dialysis cannot undertake active police roles, as they may not be reliably fit on a day-to-day basis, and the dialysis access site (shunt or catheter) is vulnerable in confrontational situations.

Police roles require a minimum level of physical fitness, as they involve walking about for several hours at a time, and police officers may also have to undertake strenuous exertion if they chase or restrain a suspect. PCSOs and police officers need to learn self-defence techniques (officer safety training). The completion of the job-related fitness test is a prerequisite to undertaking officer safety training. Candidates who have had a prolonged period of ill-health as a result of poor renal function may struggle to achieve the basic standards required.

Transplant patients will be taking immunosuppressive drugs which could render them vulnerable, for example, if they develop osteopenia on high-dose corticosteroids.

A transplanted kidney will be in an anatomically unnatural position where it does not have protection from trauma, either by the chest wall or by the stab resistant MetVest. Injuries to the transplanted kidney have been described as leading either to graft disruption or loss of function. This risk for an employee is unacceptable to the MPS. However, provision of a purpose fitted shield, as used by sportsmen, may help reduce the risk considerably, though this is not an evidence-based intervention.

Recruits must be able to provide a number of years of service. Police officer candidates have to be fit, more likely than not, for the next 5 years, and for candidates under 40 it is necessary to consider whether they are fit to enter the pension scheme.

When individuals have the determination to achieve sufficient fitness levels, their consultants are supportive in terms of current health and prognosis, and the employer can make adjustments, including learning from other fields as to suitable provision, whereby these various barriers can be overcome. Candidates with renal transplants can be successfully recruited into roles which might initially appear unsuitable.

Learning points

- Individuals with renal allografts can participate in confrontational careers such as police officers with suitable adjustments.
- The transplant should be protected from traumatic damage by a bespoke orthotic shield.
- Employers should explore novel adjustments in order to recruit individuals with a disability.

Contributors SL managed the recruitment of patients into the Metropolitan Police Service, and planned the outline of the manuscript. CAL carried out the literature review. DM supplied clinical details about the patient of case 1. RR supplied clinical details about the patient of case 2.

Competing interests None.

Patient consent Obtained.

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