Contemporary Themes

Survey of Attitudes of Hospital Staff to Cadaveric Kidney Transplantation

DAVID L. CROSBY, W. E. WATERS

British Medical Journal, 1972, 4, 346-348

Summary

A survey of attitudes showed that apprehensions about the practical implications of cadaveric kidney transplantation were common in doctors and nurses in two acute general hospitals. It also indicated that lack of awareness about potentially suitable donors may be a contributing factor to the existing shortage of donor kidneys.

Introduction

The persistent shortage of cadaveric donor kidneys has prevented kidney transplant units from treating many patients.¹ This has been confirmed by personal communications with the directors of kidney transplant units in England and in Wales. A survey of hospital deaths suggested that this shortage is more apparent than real and results mainly from inadequate cooperation between clinicians caring for potential donors and surgeons working in kidney transplant units.² The underlying reasons for this failure of communication must be understood if the situation is to be improved. We report here our findings from a survey of attitudes to kidney transplantation among doctors and nurses in two large acute general hospitals.

Method

A nominal roll of all the doctors and State-registered nurses working in the United Cardiff Hospitals was obtained. The two hospitals concerned are of about equal size and have a combined total of 805 acute beds. One of the hospitals has facilities for regular haemodialysis and a kidney transplant unit, the latter having been opened two years previously. The medical staff were stratified into consultants, registrars (which included senior house officers), and house officers. A sample of 50 from each of these groups was selected at random. A random sample of 100 State-registered nurses was also selected, and these were divided into senior and junior nurses depending on whether or not they had had more than 15 years' experience in hospital work.

In 1970 a questionnaire was sent to each of the 250 subjects selected, and if they were not returned up to two reminder letters with further copies of the questionnaire were sent.

Results

The response rate varied from 83 to 100% in the various subgroups (Table I). In general the replies (Tables II-VI) from doctors and nurses were similar in regard to the place of kidney transplantation in the treatment of chronic renal failure, though 35% of the senior nurses regarded it as an experimental method of treatment that should be used only as a last resort (Table II). Most of all subgroups did not think that their attitude towards kidney transplantation had been affected by the publicity about heart transplants (Table III).

Questions concerning the practical aspects of removing donor organs from a patient who had just died showed that doubts and misgivings were common (Table IV). Thus 80% of the younger State-registered nurses were concerned about the extra distress

TABLE I—Details of Sample

Group	No. in Sample	Left Area	Completed Questionnaires	Response Rate
Consultants	50	0	50	100%
Registrars	50	0	49	98%
House officers	50	3	39	83%
Nurses	100	6	87	93%

TABLE II—Efficacy of Kidney Transplantation. Responses shown as Percentages of Total Replies Received

	Consultants	Registrars	House Officers	Nurses	
				Senior	Junior
<i>Question: Which of the following opinions about kidney transplantation is nearest to your own?</i>					
(a) A method of treatment which now justifies general acceptance	80	80	79	59	76
(b) An experimental method of treatment which should be considered only as a last resort in some patients	14	16	21	35	21
(c) An unjustified method of treatment in the light of present medical knowledge	4	4	0	0	1
<i>Question: Which do you believe to be the best method of treatment now available for a patient with terminal renal failure?</i>					
(a) Repeated artificial kidney treatment	0	4	8	0	6
(b) Kidney transplantation	14	20	15	12	20
(c) Either of the above, depending on the particular patient	80	76	77	76	74

TABLE III—Effect of Heart Transplant Publicity on Attitudes to Kidney Transplantation. Responses shown as Percentages of Total Replies Received

	Consultants	Registrars	House Officers	Nurses	
				Senior	Junior
<i>Question: How has the publicity about heart transplants influenced your own attitude to kidney transplantation?</i>					
(a) More favourable	2	2	3	0	10
(b) Less favourable	4	8	3	12	7
(c) No change	92	86	94	88	81

University Hospital of Wales, Cardiff
DAVID L. CROSBY, F.R.C.S., Consultant Surgeon

Department of Clinical Epidemiology and Community Medicine,
Southampton University
W. E. WATERS, M.B., M.F.C.M., Senior Lecturer

that might be caused to recently bereaved relatives, and 40% had apprehensions about the ultimate limits of attempts to prolong life. Altogether 36% of the consultants thought that more urgent and important medical work was being neglected in favour of organ transplantation, and about half of each subgroup admitted to difficulty in deciding when a cadaveric donor had actually died. The possibility of reduced standards of care of dying

patients who were potential organ donors was also a matter for concern by almost 30% of the registrars and house officers.

Most doctors and nurses thought that they had received insufficient information about which patients were suitable potential kidney donors (Table V). Also there was divergence of opinion about whether a kidney transplant unit should be informed about a potential donor without previous consultation with the relatives (Table VI).

TABLE IV—*Apprehensions About Kidney Transplantation. Responses shown as Percentages of Total Replies Received*

	Consultants	Registrars	House Officers	Nurses	
				Senior	Junior
<i>Question: Serious doubts have been expressed about the justification for removal of organs for transplantation from a patient who has just died. Please tick any of the following about which you have misgivings</i>					
(a) The possibility of reduced standards of care of dying patients	12	29	28	12	21
(b) Distaste concerning any interference with a dead body	2	4	3	18	4
(c) Difficulties regarding the decision on when a patient has actually died	48	49	51	47	50
(d) The possibility of causing extra distress to deceased patients' relatives	38	53	41	65	80
(e) Apprehensions regarding the ultimate limit to attempts to prolong life	34	33	33	18	40
(f) Apprehensions with regard only to certain organs—e.g., heart, liver	20	8	8	6	13
(g) Fear of "abuse"—e.g., removal of organs for laboratory experiments only	6	6	10	6	11
(h) More urgent and important medical work is being neglected in favour of organ transplantation	36	25	23	24	4

TABLE V—*Information About Potential Kidney Donors. Responses shown as Percentages of Total Replies Received*

	Consultants	Registrars	House Officers	Nurses	
				Senior	Junior
<i>Question: Do you think that there has been sufficient information about which are suitable potential donors for cadaveric kidney transplantation?</i>					
% Answering no	62	69	79	71	66

TABLE VI—*Procedure With Potential Kidney Donors. Responses shown as Percentages of Total Replies Received*

	Consultants	Registrars	House Officers	Nurses	
				Senior	Junior
<i>Question: A young patient under your care seems certain to die. If you knew that the circumstances were favourable for kidney donation after death would you</i>					
(a) Have no objection to a kidney transplant unit being informed as soon as possible?	44	41	46	29	34
(b) Agree that a kidney transplant unit be informed only after this had been discussed with the patient's relatives?	44	57	51	59	57
(c) Consider informing a kidney transplant unit only if the patient's relatives first suggest this?	4	2	3	12	9
<i>Question: In such a case who do you think the most appropriate person to interview the potential donor's relatives in order to request their consent?</i>					
(a) A doctor who has cared for the patient during life	56	65	46	29	49
(b) A ward sister who has cared for the patient during life	2	4	0	0	1
(c) A doctor from the kidney transplant unit	14	12	15	18	11
(d) An independent doctor—i.e., one who has not been involved with the care of either donor or recipient	10	6	21	12	3
(e) Some other independent person—e.g., a hospital chaplain	10	8	15	24	17
<i>Question: Do you think it improper that a ward sister or staff nurse suggest to the doctors caring for a dying patient the possibility of cadaveric kidney donation?</i>					
% Answering Yes	18	27	36	65	31

Discussion

Evidently cadaveric kidney transplantation has gained a wide degree of acceptance by hospital doctors and nurses as an orthodox method of treatment. Also regular haemodialysis appears to be a well-recognized alternative. Despite this general acceptance of cadaveric kidney transplantation earlier surveys in Wales showed a definite discrepancy between the number of possible cadaveric donor kidneys in the region and the number actually reported to the kidney transplant unit. Allowing for a proportion of patients best treated by home dialysis, Branch *et al.*³ estimated that about 100 cadaveric kidneys a year would meet the present demand in Wales. In a retrospective survey of hospital deaths in Wales in 1969, 76 "probable" and 167 "possible" donors were identified,³ and this indicated that the potential supply of donor kidneys is sufficient to meet the demand of patients needing kidney transplantation. Of the 76 probable donors identified in that survey, however, only 17 became available to the Cardiff Kidney Transplant Unit.

This survey suggests two possible reasons why the supply of cadaveric kidneys does not meet the present demand. Firstly, a majority in all of the subgroups surveyed believed that there had been insufficient information about which patients were suitable potential donors for cadaveric kidney transplantation, and this led to many potential donors going unrecognized and therefore unreported. If doctors and nurses feel insecure about how to identify possible donors they are obviously less likely to go out of their way to contact a potential donor's relatives and the transplantation team. Secondly, the survey suggests that doctors and nurses are frequently apprehensive and have misgivings about the practicalities of removing donor kidneys from a recently deceased patient. This may account for some reluctance to act when the opportunity arises; possibly the possibility of causing extra distress to surviving relatives is an important consideration (see Table IV). The attitudes of the general population to kidney transplantation are therefore important, and an informed and sympathetic appreciation of this method of treatment should help to reduce the apprehensions of medical and nursing staff who now worry about causing further distress to deceased patients' relatives.

Difficulties regarding the precise timing of clinical death of potential donors also seem to cause continuing concern among hospital staff. Moreover, there is probably some division of opinion about the most appropriate procedure to be adopted when informing a kidney transplant unit about possible donors. Revision of the Human Tissue Act 1961 might help to clarify the legal position, especially in defining who is "lawfully in possession" of the body of the cadaveric donor and what inquiries such a person is required to make.

Though about 80% of the doctors replying to the survey considered kidney transplantation to be generally acceptable a minority still regarded it as an experimental method of treatment (Table II). There is probably something of a vicious spiral in that the fewer cadaveric kidneys there are available the less likely is it that the advantages of tissue typing and organ matching can be fully applied. Conversely, the more the method is accepted the better the supply of well-matched donor kidneys and the better the results of transplantation. This in turn should result in more support for kidney transplantation and more kidneys may become available. Hence the majority of doctors who now accept cadaveric kidney transplantation should report to the

nearest kidney transplant unit as many potential donors as are available. In doing this doctors will need to enlarge their vision from concern for the patients under their own care to include other patients who may otherwise die.

From this survey it seems that a sustained campaign is required to improve the communication between doctors and nurses caring for potential donors and those working in kidney transplant units. These measures may be taken on a regional basis, as described for six large Liverpool hospitals by Sells and Heal.⁴ National approval and support for such local schemes by

the Department of Health and Social Security would be valuable and appears to be indicated.

References

- ¹ Branch, R. A., *et al.*, *British Medical Journal*, 1970, 1, 291.
- ² Crosby, D. L., West, R. R., and Davies, H., *British Medical Journal*, 1971, 4, 401.
- ³ Branch, R. A., Clarke, G. W., Cochrane, A. L., Jones, J. H., and Scarborough, H., *British Medical Journal*, 1971, 1, 249.
- ⁴ Sells, R. A., and Heal, M. R., *British Medical Journal*, 1972, 1, 50.

Hospital Topics

A Year in the Life of a Surgical Day Unit

T. H. BERRILL

British Medical Journal, 1972, 4, 348-349

Outpatient surgery has been practised for a very long time. At a B.M.A. meeting in 1909 Nichol¹ reported on over 7,000 children operated on as outpatients at the Royal Glasgow Hospital for Sick Children during the decade 1899 to 1909. These included patients with hernia, harelip, and cleft palate, talipes, spina bifida, and tuberculous glands. One has some misgivings about the home conditions in Glasgow in the nineteenth century. Surprisingly, Nichol's account does not seem to have stimulated much interest in the practice, and little more was published until 1955, when Farquharson² described a series of 600 cases of hernia operated on under local anaesthesia and sent home the same day. These were done over a period of six years, averaging 100 a year. Subsequently, further series were recorded by Lawrie,³ mainly of children, and by Stephens and Dudley,⁴ Aldridge,⁵ and Williams.⁶ Most of the patients suffered from hernia and all were admitted to a surgical ward for the day and operated on at the beginning of a routine list. These arrangements inevitably put an extra burden on the ward staff and limited the number of patients that could be dealt with in this way.

The advantages of an entirely separate unit for day cases are considerable and were well described by Calnan and Martin.⁷ An existing hut at Hammersmith Hospital was converted, providing a theatre unit and a small recovery ward, with the usual offices. Space was restricted, however, so that the number of patients dealt with was comparatively small—750 a year.

This is an account of the work done in a somewhat larger unit in Coventry during 1971. It shows the much greater turnover that can be achieved with extra accommodation.

Present Unit

The possibility of a surgical day unit had been considered in Coventry for some years but no room for it could be found. Then in June 1969 the new district hospital was opened at Walsgrave and the bed situation was dramatically improved. We were fortunate in having a former maternity ward at Gulson Hospital in which the labour wards had been converted into an excellent theatre unit. The ward consisted of five rooms, each containing four beds, plus the usual supporting offices. It was thought that 12 beds would be sufficient, so these were provided in three of the rooms, leaving other rooms for a general purpose room, sister's office, secretary's office, patients' waiting room, etc. Only minor structural alterations were required and it was opened as a surgical day unit in March 1970. The unit has been in full use since 1 January 1971.

Nursing staff consist of one sister, one staff nurse, and two assistant nurses in the ward and one sister and three assistant nurses in the theatre, with the loan of a sister or staff nurse from the main theatres as required. Since my retirement I have had the overall responsibility for the running of the unit with the help of a full-time medical secretary. This is desirable and probably essential to ensure its full potential and to make adjustments in the programme. But clearly success depends ultimately on the keenness and devotion of the nursing and secretarial staff, and in both this unit has been fortunate indeed. General administration, preoperative investigations, and liaison with general practitioners and district nurses are all much the same as those described by Calnan and Martin⁷ and are not repeated here. The

Coventry and Warwickshire Hospital, Coventry, Warwickshire
T. H. BERRILL, M.B., F.R.C.S., Late Consultant Surgeon

TABLE 1—*Timetable of Work carried out in the Surgical Day Unit*

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	Dermatology, plastic surgery,* sclerocompression	Urology†	General surgery†	Orthopaedic surgery†	E.N.T. or dental surgery†
Afternoon	Minor ops.,* sclerocompression	Radiotherapy	Minor ops.,* sclerocompression	E.N.T.†	Sclerocompression

*Local anaesthesia
†General anaesthesia.