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The Psychiatric Contribution to a Renal Unit Undertaking Chronic Haemodialysis and Renal Homotransplantation

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Introduction

The Renal Unit of the Queen Elizabeth Hospital, Adelaide, South Australia, provides the only specialized renal service for the State's population of one million. Established two years ago, it has developed a programme of recurrent haemodialysis and has used recurrent peritoneal dialysis for a period. It is associated with a renal homotransplantation programme. The Unit staff consists of a full time Director, one Senior Medical Registrar, a Senior House Physician, nurses and technicians. There is a close liaison with the University of Adelaide Department of Surgery which has been responsible for establishing and running the homotransplantation programme with a staff of a Senior Lecturer and the assistance of two Honorary Assistant Surgeons. The psychiatrist works closely with the group and interviews all patients entering the programme. His role has been that of an observer and adviser on the management of patients in chronic renal failure, and in the psychological screening of potential kidney donors.

The Recurrent Dialysis Programme

Review of the Literature

In recent years in many centres throughout the world, patients dying of renal failure have been maintained by recurrent peritoneal or haemodialysis, e.g. Scribner *et al.* (1960), Maher *et al.* (1960), Boen *et al.* (1962), Hegstrom *et al.* (1962), Gutch *et al.* (1964), Schumacher *et al.* (1964), Schupak and Merrill (1965), Freeman, Maher and Schreiner (1965), Shea *et al.* (1965), and Pendras and Erickson (1966). Most accounts have referred to the psychological issues and difficulties briefly and in a relatively superficial way. For example, Scribner *et al.* (1960) commented that one of their patients lacked stamina, felt fine as long as he was sedentary but was easily fatigued: Gutch *et al.* (1964) mentioned that their patient on periodic peritoneal dialysis had good morale, and was active and alert out of hospital.

Barber (1963) and her co-workers emphasized the optimism and co-operation of their patients and noted the difficulties in evaluating other psychological factors. A more detailed description of the psychological problems was given by Walker Brown *et al.* (1962). They commented on the variety of psychiatric disturbances observed, and noted that the mental, emotional and personality upsets may be due to uraemia, to the provocation of a chronic debilitating disease or to the repeated technical procedures of dialysis. The only observations by psychiatrists in the literature are by Wright (1966) of Seattle, and by Shea *et al.* (1965) working at the Georgetown University centre in Washington. Wright followed eleven patients on chronic dialysis for between six and thirty-four months, and mentions a number of the stresses affecting these patients, such as the unpredictability of feeling well, the tensions arising in the marriage situation from guilt and anger, the effect of separation on families, and financial anxiety. Shea (1965) and his colleagues reported their experience with nine patients on haemodialysis who had been seen regularly over two and a half years. The patients' reactions occurring before dialysis consisted mainly of irritability, fear and insomnia, while during dialysis the anxiety was related to the machine and there was some reactive depression; following dialysis the main response was relief. They briefly discuss the patient's reaction to dietary restrictions.

Sand, Livingstone and Wright (1966) and

Retan and Lewis (1966) in accounts of psychological assessment of candidates for haemodialysis programmes and experiences of working on such a programme, agree that successful adjustment appears to depend on higher intelligence, free admission of anxiety or emotional difficulty, and avoidance of emotional defences that involve the use of physical symptoms, such as hypochondriasis and hysteria. Of importance too is strong emotional support from family members.

Lindholm, Burnell and Murray (1963) describe the selection procedure and the criteria used at the Seattle Community Haemodialysis Centre. In addition to the medical evaluation committee, there is a second committee of responsible professional and lay people working anonymously to help resolve the important emotional and ethical problems. This committee makes the final decision as to which patient shall be maintained on dialysis. Gonzales *et al.* (1963) emphasized purely medical criteria and did not consider social and other non-medical aspects. Schreiner and Maher (1965) reviewed the medical, moral and socio-economic problems in dialysis and raised general questions from "can it be done?" to "should it be done?" to "will it be done?" They reviewed 11 current medical problems, including such unanswered questions as whether the peripheral neuropathy seen in so many patients is caused by too frequent or badly timed dialysis. They mention psychiatric problems, including self-destructive tendencies in the patients and the difficulty of assessing patient motivation.

It is clear that there will be more candidates for therapy than finance and available staff can treat. The economic aspects are discussed by Kolff (1962) and his colleagues, who make it clear that without the help of the Hartford Foundation the dialysis programme would have been impossible. Even if the patient's medical care, hospitalization, medicine and treatment are all paid for, the patient still faces severe economic problems. Wives may have to go to work: if debt is incurred, this adds to family anxiety, and business arrangements may have to be altered drastically. All this must have a considerable emotional impact on the patient, his response to his illness and to his family interactions. Schreiner and Maher (1965) also make the point that excessive expansion of chronic dialysis units should not be allowed to drain medical centres of doctors and ancillary personnel, money, time and energy and so prevent research into the causes and prevention of specific types of renal disease.

This paper describes the experience obtained in two years of intensive work in this Unit in which all patients embarking on therapy have been assessed and their progress followed by the psychiatrist. It must be pointed out that much of the material in this paper has been collected during the early developmental stages of the work of a new renal unit. Already there is encouraging evidence that, as staff become more confident as a result of experience gained, a number of the dramatic events which have been described by the patients, e.g. the anxiety about the artificial kidney and its mechanisms, are non-recurring. One point that should be emphasized is that this unit runs a double programme in that both recurrent haemodialysis and a transplantation programme are conducted in parallel.

Method of Clinical Study

In the early stages of the programme, patients in renal failure were not pre-selected, but came to intermittent dialysis as indicated by the clinical state. Subsequently, a programme was instituted of regular haemodialysis every four to six days with a Kolff twin coil artificial kidney, or every seven days for repeated peritoneal dialysis. The patients enter hospital in the early morning, are dialysed during that day and return home on the following morning. The next appointment for a further dialysis is made according to the individual programme schedule. Should technical difficulties arise, the patient may be kept in hospital for a longer period, or may require emergency admission. More recently, patients with irreversible, chronic and acute renal failure have been pre-selected to the extent that obviously unsuitable cases are not transferred from other hospitals, while others are admitted for a period of assessment and a trial of treatment. Several patients had had arterio-venous cannulae inserted and haemodialysis instituted before a thorough

assessment had been completed. The present policy is to undertake peritoneal dialysis until the patient is assessed and then if he is suitable and if there is space on the programme haemodialysis is instituted.

Initially the role of the psychiatrist in the Unit was not that of therapist but simply that of observer and interpreter. In his relations with patients and families it was obvious that he could not be an entirely passive participant, but as far as possible he played no positive therapeutic role and left this entirely to the treatment team who were in close daily contact with the patients. As his experience of this work and of the patient's problems developed, a more positive therapeutic role was undertaken. Every patient who is accepted for treatment is seen by the psychiatrist. The interviews are held either in the psychiatrist's office, or in a ward side room in reasonable privacy and take place following a dialysis. At this time the patient is least troubled by other technical procedures, but because of the ease with which a number of the patients become fatigued during the early phase of a dialysis programme, interviews are frequently of short duration, so that a total picture of the patient's personality, assets and resources is built up over many weeks. Several interviews in each case have been carried out in the predialysis period to note changes of temperament or mood.

The Patients

Table I shows the general particulars of the patients who have been in the care of the Renal Unit and who have been seen by the psychiatrist.

Amongst the 21 patients are some who are still in the process of being assessed (Group I), while in others treatment was abandoned for technical or other reasons.

Of the 21 patients, 6 have so far undergone renal homotransplantation (Group III).

Problems of Adjustment

In those patients initiated into dialysis following an emergency when they suffered from acute or acute on chronic renal failure, the memories of what happened on the first occasion are either hazy or non-existent. The general immediate reaction appears to be gratitude to the team and to the technique which has allowed a rapid improvement in health. The main problems of adaptation only develop when the patients realize that they must have dialysis again. At this stage the general reaction has been an expectation that treatment is going to take a little more time than had been thought originally, and therefore they will have to put up with dialysis on one or two more occasions, until their kidneys begin to function again. It is at this time that the supervising physician must begin with simple psychotherapy to help the patient come to terms with his real situation and to work through his reactions. Invariably, the patient uses massive denial to deal with this initial situation. The question of helping the patient understand that he has a fatal illness and will die unless he has repeated dialysis becomes not a moral or ethical problem but a matter of therapeutic skill and judgment, calling for perceptiveness and knowledge in the ongoing, intense interpersonal relationship that must develop between the doctor, the patient and his family. It should be noted that the doctor may have to repeat on several occasions information which he thinks the patient already understands. This repetition is required because of the patient's need to deny such unwelcome news, as for example, that the kidneys will never function again or that dialysis will have to be recurrent in order to maintain life. This information can only be accepted slowly and is typified in one patient who said, "Sometimes I sort of think of it, and then I just shut it off in my mind and think—'I don't know and I don't really understand, so why worry sort of thing'—you know. Because I guess in all of us there is always this element of wanting to know so much and then you have heard so much and you think—'Oh, this is enough to digest for a while, I won't bother to find out any more.' "

To begin with, the patients on haemodialysis find the first two or three treatments rather disturbing and frightening. One of the patients could not look at the tubes of blood on the

GROUP I

Patients with Chronic Renal Failure, Dialysed but NOT yet in Regular Programme

No.	Sex	Age	Marital Status	No. of Children	Social Status	Renal Pathology	Treatment	Donor	Result
1*	M	28	M	1	III	Urethral valve Chronic pyelonephritis Hypertension	Peritoneal dialysis (4 times)	—	Died
2*	F	39	M	4	III	Glomerulonephritis Systemic lupus erythematosus	Occasional peritoneal dialysis over 4 months	—	Died
3	F	43	M	0	IV	Acute glomerulo-nephritis	Peritoneal dialysis (twice)	—	Died Hyperkalaemia
4	F	27	M	2	III	Chronic pyelonephritis		—	Alive
5	M	41	M	1	I	Chronic glomerulo-nephritis	Peritoneal dialysis (twice)	—	Alive
6	M	45	M	2	II	Chronic pyelonephritis	Peritoneal dialysis (4 times)	—	Alive

GROUP II

Patients with Terminal Renal Failure begun on Regular Dialysis and not (yet) Transplanted

No.	Sex	Age	Marital Status	No. of Children	Social Status	Renal Pathology	Treatment	Donor	Result
7	F	30	M	3	II	Acute glomerulonephritis	Haemodialysis (27 months)	—	Alive
8	F	20	S	0	III	Chronic pyelonephritis Bilateral hydronephritis	Peritoneal dialysis (12 months)	—	Died
9	F	32	M	0	II	Chronic pyelonephritis	Peritoneal dialysis (15 months) Haemodialysis (9 months)	—	Alive
10	M	36	M	3	IV	Chronic glomerulo-nephritis	Peritoneal dialysis (2 months)	—	Died
11*	M	24	S	0	III	Chronic pyelonephritis Hypertension	Haemodialysis (2 months)	—	Died*
12*	F	25	M	2	III	Malignant hypertension	Haemodialysis (2 weeks)	—	Died
13	M	23	S	0	III	Chronic pyelonephritis	Haemodialysis (7 weeks)	—	Alive
14	M	39	M	4	I	Chronic pyelonephritis Hypertension	Haemodialysis (6 weeks)	—	Alive
15	F	36	M	1	III	Chronic pyelonephritis	Haemodialysis (two periods) 6 weeks then 5 weeks	—	Alive
16	F	16	S	0	II	Chronic congenital nephritis hypertension	Haemodialysis (6 weeks)	—	Alive

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GROUP III

Patients with Terminal Renal Failure treated by Renal Homotransplantation after a period of Intermittent Dialysis

No.	Sex	Age	Marital Status	No. of Children	Social Status	Renal Pathology	Treatment	Donor	Result
17	M	31	M	3	IV	Acute glomerulo-nephritis	Haemodialysis (6 weeks) Transplant	Father-in-law	Alive Working 16 months
18	M	30	M	2	III	Chronic glomerulo-nephritis Hypertension	Haemodialysis (14 months) Failed trans-plant Successful transplant	Cadaver Cadaver	Alive Working 6 weeks
19	M	45	M	6	II	Chronic glomerulo-nephritis	Haemodialysis (6 weeks) Transplant	Friend	Alive Working 10 months
20	F	26	S	0	III	Chronic pyelonephritis	Haemodialysis (4 weeks) Transplant	Mother	Alive Working 8 months
21*	M	22	S	0	IV	Acute glomerulo-nephritis	Haemodialysis (5 months) Failed trans-plant	Mother	Died*
22	F	48	M	4	III	Chronic pyelonephritis	Haemodialysis (4 weeks) Failed trans-plant Successful transplant	Husband Cadaver	Alive 6 weeks

* Patients in whom active treatment was discontinued.

occasion of an early dialysis because she was preoccupied with the fact that this was her blood outside her body. She found this disturbance to her body concept very upsetting and felt sick and nauseated. A number of patients have become quite disturbed by the awareness of bodily changes. For example, the fact that they rarely, if ever, have to urinate has been commented on spontaneously by several patients.

In two patients, previous treatment with cortisone had produced Cushing's Syndrome. One of these ladies was particularly offended when she heard one of the doctors mention that she had the typical "moon face", and she was even more alarmed when friends passed her in the street without recognizing her. Here was a tremendous blow to her self-esteem and self-awareness. Although this result of treatment was not directly due to haemodialysis, the emotional concomitants had to be dealt with therapeutically in this programme. Another patient has been concerned with the pigmentation which has occurred in her face over two years of recurrent dialysis, and now uses very thick make-up in order to feel at ease in public.

A number of the patients on haemodialysis became preoccupied with their shunts. The shunt is the piece of tubing which links the two cannulae in the forearm, one of which is inserted into an artery and the other into a suitable vein. The connecting loop is removed to connect the patient to the artificial kidney and at the end of dialysis it is reconstituted so that the arterial pressure maintains the blood flow through the loop until the next dialysis. Patients rapidly work out for themselves that the number of sites on the body where shunts may be inserted is limited, and they become concerned with the

colour of the blood in the shunt, since they quickly learn to associate a change of colour with clotting and with the need for urgent return to hospital to have it unblocked. This enhances dependency feelings on the hospital and its staff, and they feel, at least initially, afraid to be by themselves and too far from the hospital. This means that in the early stages families have to organize shopping expeditions in the company of the patient and make other arrangements so that he or she is never alone.

Another source of unspoken anxiety lies in the idea that the mechanical pump will break down and that they will either die or something else disastrous will happen to them because of mechanical failure. The fact that their own heart is pumping all the time is not fully appreciated by them in this state. This feature has been less obvious in patients admitted later to the programme when techniques have been improved and have become more routine.

The Mourning Reaction

This of course has now been well recognized and documented in the psychiatric literature, although it is not well appreciated by general physicians as occurring in patients ill with a chronic disease. Our patients, when they cease denying their illness, realize that they have lost their health and their independence, and that their future and financial position are uncertain. "I don't worry for myself, it is just that I will not be able to see the children grow up." Some of the fatigue, anorexia, poor sleep and itching reported by our patients during the early weeks and months of adjustment is undoubtedly due to the depression of the mourning reaction. All the patients in this series are relatively young and reasonably could have expected a much longer life than they are to have. During this period of mourning patient responses vary. The physician must be aware of this grief reaction and make allowances for it in his assessment of the clinical picture. He must also ensure that the grief is within normal limits and the patient does not become deeply depressed with suicidal tendencies. From time to time all the patients have wished to be dead, although none has been actively suicidal. They all pass through the stage of feeling that life dependent on chronic dialysis is not worth living, and all of them have become aware of the shortness of their future life span. At a suitable time they are encouraged to talk of their feelings about death and of their conception of this. Their attitudes in regard to this appear to be related to the strength of their religious convictions, and the great majority of our patients have accepted their fate with dignity and courage.

In discussing death and their attitude to it, a few have felt anger against the medical profession, irrationally for its failure to be omnipotent, and perhaps more realistically for its failure in diagnosis or preventive therapy: some of the hostility is directed at those who are to go on living: surprisingly few have felt a sense of being punished; most attempt to be stoical and philosophical.

Five patients have passed from the mourning reaction into a state of active depression. One of these became acutely depressed following his first haemodialysis. In the preceding months he had used massive denial to obliterate the implications of his illness, but the reality of the shunt and of the artificial kidney caused this adaptation to fail, and he was left with profound depression and the fear that he could not go through with the programme. This patient, however, worked through this phase over a period of three weeks and is now active and alert. Another patient was found dead at home apparently from natural causes. This man's brother had died of the same renal disease two years before and his mother had also died of some renal condition. The patient, who had experienced several peritoneal dialyses, some of which were painful, became depressed and inert. During the absence of the Director of the Unit for a week, the patient was found dead in his bed at home. It was certain that he had not committed suicide, but there was no obvious pathological reason why he should have died. This may have been a case of a man who was unwilling to live on these terms, and possibly his reaction to several painful peritoneal dialyses reinforced his wish to die.

Clinically depressed patients have been treated with the usual doses of amitryptyline,

and where agitation has been a feature it has been well controlled in most cases with the use of diazepam.

The patients make their own personal decisions about death. One patient, a young unmarried girl being treated with peritoneal dialysis, had worked out for herself that her life was severely limited. Her grief response was to turn deliberately to sexual intercourse with her boy friend, but this resulted in a sense of guilt and remorse which required psychotherapeutic help. This girl also had the emotional problem of deciding whether to marry her boy friend, as her parents were against the marriage. The individuals had to resolve this for themselves, but the physician had to be aware of his interpretative role.

The Problem of Diet

Patients have to maintain a strict diet to control their electrolytes and fluid and minimize their uraemic symptoms between dialyses. This causes problems to most patients, in spite of the skill of the dieticians in making salt-free and restricted protein diets as attractive as possible. The patients, who in the past have tended to eat compulsively to ease their feelings of tension, now have difficulty with their anxiety and frustration. Some of them have had dreams of eating at banquets in luxurious surroundings, or of eating favourite but now forbidden meals. The account of the dreams is similar to those reported by prisoners of war. Food also tends to become a standard topic of conversation among the patients themselves.

The diet also acts as a means of displacing anger and hostility. A number of the patients criticize the hospital meals very articulately, thus expressing their dislike of the whole situation which the food symbolizes. By refusing a meal they can worry the staff and again use the food and the eating situation aggressively. Quite a number of the less stable and less well integrated personalities overeat or eat restricted food items in excess when the senior staff member responsible for them is absent for a day or two. The anger at being abandoned and the separation anxiety have had to be eased by the consolation of the forbidden food. The weight gain and disturbed electrolytes give work and anxiety to the staff and so punish the erring member.

Reference has been made in the literature, notably by Berlyne and Shaw (1965), to the psychological complications of the Giordano-Giovanetti diet in terminal renal failure. This diet consists of essential amino-acids and protein of egg albumin amounting to 20 gms. daily. They describe a terminal stage of agitation coupled with a sense of impending doom. Along with the psychological symptoms there is a bleeding tendency, and when this symptom-complex appears, death can be expected within a fortnight if this is not recognized and treated. We have seen one similar patient who in the last three weeks of her life became profoundly depressed and agitated. Electroplexy was used on two occasions, but the patient's condition deteriorated so rapidly that it was ineffective.

It was interesting to note a difference in the ease of acceptance of the dietary restrictions between those patients who had been chronically ill and those whose illness had an acute onset. The patients in the chronic group had become used to dietary control over the preceding months and years and so had worked through their difficulties, but for the patients with an acute onset of renal failure this was yet another stress situation.

Some Patterns of Behaviour

Various defensive manoeuvres are seen as the patient attempts to retain his vital balance, and some of these have already been referred to in preceding sections.

All of the patients become extremely dependent on the staff and emotionally attached to them. When there is a staff alteration the patient experiences a marked sense of loss, with anxiety that the new staff member will not understand his needs. This leads to the patient attempting to show the new staff member what happens at a particular time or the meaning of a particular reaction. The resulting tension in some of the less well integrated patients presented as regular overeating.

In order to lessen the sense of loss sustained by patients when permanent staff leave the

Unit, it seems important that the new staff members should be introduced to the Unit over a period of some two or three weeks and work alongside the team member being replaced. This provision is important at all staff levels, and in this way the sense of loss is less acute and the patient more comfortable.

One patient on coming into the programme was in debt to the tune of several hundred pounds. It required a great deal of time, patience and work on the part of the social worker to help this man and his wife resolve their hire-purchase commitments. When the social worker whom they saw regularly was on holiday, the couple chose this time to be "good to themselves" and bought a car, leaving the consequences to be dealt with by the social worker on her return.

Regression is a not infrequent phenomenon. One patient who has required dialysis twice, but is not yet on the regular programme, went into severe tetany and laryngeal spasm following parathyroidectomy for secondary hyperparathyroidism resulting from his chronic renal disease. He was successfully treated, but became inert, withdrawn and apathetic. He lay curled up in bed and pretended to sleep. At interview he was encouraged to describe his acute fear during the incident and his sense of anger at this being allowed to happen. Two incidents early in life seemed important. As an infant he was extremely ill with pneumonia, and as a small child he had a fishbone stuck in his throat and could recall the panic and tension as his parents tried to deal with it. It was interpreted to him that his reaction was his anger at the failure of the medical staff to be all-powerful and to protect him, in just the same way as he had probably been made angry and afraid by the inability of his parents to cope with his distress. His behaviour could be understood as regression to childish sulking withdrawal. Dealt with in this way he quickly responded. Another two patients acted out very dramatically at times and were difficult, demanding and easily labelled "uncooperative". Both these young men were from different European cultures and were relatively unintelligent so that considerable problems of communication developed.

Psychiatric insights are especially helpful in allowing staff members to understand the meaning of the patient's behaviour in dynamic terms. One patient was irritable and swore at a young nurse one day. The nurse could be helped to understand this when it was explained that this was an example of displacement of feelings to her, since the patient identified her with a younger sister who was his mother's favourite while he was rejected.

Prior to entering the programme one patient, while being treated for episodes of acute on chronic renal failure, decompensated psychologically to such an extent as to become floridly psychotic with paranoid delusions.

As our experience of the stresses of chronic disease and treatment has increased, we have become aware that the strict therapeutic regime deprives patients of outlets for their tension. They have to make fundamental adjustments to a completely new and artificial way of life. Normally, people under significant stress attempt to relieve that stress and return to a state of equilibrium by using various adaptive and defensive devices, such as physical activity, eating, taking alcohol, smoking or in sexual outlets. These patients, however, are forced to maintain a very restricted, monotonous diet, and are not allowed to drink alcohol; many of them have been discouraged from smoking tobacco; nearly all of them have a marked loss of libido, and all of them from time to time have suffered profoundly from anergia and apathy. Theoretically and in practice we would expect that a number of these patients would show other symptoms of tension which they must discharge in other ways. Mention has been made of the patient who turned his face to the wall and died. Another patient with pre-terminal renal failure, who was considered unsuitable for the dialysis programme, developed an arthritic condition of her knees and elbows. This may have been related to an increase in tension as the implications of her situation became clearer to her, since as a personality she was inhibited, reserved, accustomed to bottling up her feelings and keeping herself in tight control.

In some cases epileptiform seizures have been precipitated by quarrels and arguments with family members. Insomnia and frightening

dreams are other substitute symptoms noted. A number of patients have been distressed by aggressive dreams, sometimes involving members of their family, where they are clearly angry with the fact that their families are fit and well and will continue living. Periods of emotional distress are often related to disturbed fluid and electrolyte balance.

Since adjusting to a chronic illness may require more time than these patients may have, we have attempted to help them control their tension by using relaxation exercises in which the physiotherapists can help. One patient attributed his improved state of mind to this therapy.

Scribner (1965) has noted in his patients an improvement in wellbeing each year that their life is prolonged by therapy. Most patients must accept life on a day-to-day basis, and long term plans and arrangements cannot be made with confidence, because precise timing of dialysis and other complications cannot be accurately anticipated. This loss of a predictable future requires compensatory adjustment by both patient and spouse.

The patients themselves form intense relationships with each other. This allows for an increase in personal and group morale, although when one of their members dies there is a corresponding swing of mood.

The Family Problem

As we do not live in isolation, it is not only the patient who suffers, but also the patient's family. The majority in this series have come from well integrated, reasonably happy homes. Where there has been a poorly adjusted marital situation or other environmental stresses, the emotional calls on the family at all levels of age are very considerable. The physician has to accept that much time must be spent supporting the entire family group.

One of the early patients on the dialysis programme, a woman who has survived for more than two years was thought to be eminently suitable to be included since she was the mother of three young children under the age of five. It was considered important to prolong her life so that her children would have a consistent mothering experience. However, during the first six months there was a housing difficulty, the children had to stay with various in-laws and were able to see their mother only for the four or five days she was home each week. This meant in fact that the children were exposed to repeated separations from her, and she herself grew depressed, especially as the two younger children reacted with obvious aggression and hostility towards her and withdrew from her every time they saw her. This added to her emotional problems. There was a further complication in that when they did wish to come near her and climb on her knees she could not take them into her arms because of the presence of the shunt. In order to protect this she had to push them away with one hand, while at the same time encouraging them verbally. Whether such a repetitive conditioning experience will be traumatic for the children in the long term remains to be seen. However, this patient has in the past year made an excellent adjustment and has become reasonably independent in her own home, so that her relationships with her children are now much improved.

This example is useful in that it shows how pre-selection for the programme can be quite faulty when based on inadequate information. While theoretically it would be desirable to save the mother so that her presence could be nurturing for the children at important developmental points in their life, the quality of the mothering available to them was not appreciated.

Another patient reports that her husband, over the months of her illness, has lost weight and has become more irritable with the children, resulting in a considerable rise of tension in the household. This leads to anger and feelings of guilt on the part of the well members of the family, and to the expression of ambivalent attitudes to the patient.

One married female patient showed episodes of biochemical deterioration during the eighteen months of her dialysis programme, although there was no obvious reason for this. However, discussion with the husband by one of us revealed a man in great distress. He was able to disclose that he had learnt to live by himself and had grown away from his wife whom he felt he now

no longer loved, although he continued to care for her most attentively. Part of his problem was due to friction between his wife and his mother, and also to the cessation of normal sexual intercourse because of his wife's loss of libido. He was ambivalent about becoming a kidney donor and expressed tremendous guilt over this.

A further example of the effects of parental illness occurred in the adolescent daughter of one of the patients. This girl, an only child, was having outbursts of temper and aggressive behaviour. It was considered that she was depressed; she was aware of the danger to her father's life, but neither he nor her mother could bring themselves to share their fears with her or to give her sufficient emotional support. Psychotherapy was necessary for this family group.

Financial problems are considerable when there is the inevitable loss of income. Hospital fees can be covered only if the patient is in one of the voluntary insurance schemes. In three cases homes have had to be sold in order to rehouse the family either near the hospital or in something more suitable to a reduced income. There are problems of repeated hospital visiting with heavy transport fees. All this increases the family burden.

The Renal Homotransplantation Programme

This is mentioned briefly here since it is the other main activity involving the psychiatrist. It will be dealt with in more detail in another paper.

All patients presenting with chronic renal failure are assessed as possible candidates for renal transplantation and are interviewed by both the psychiatrist and the psychologist. Personality resources and deficits are noted, and from a study of the family dynamics and the role played by the patient in his family an indication is given to the team of likely behaviour patterns in relation to the team members. The awareness of transference problems has proved helpful in understanding the meaning of disturbed behaviour and giving proper weight to organic and to functional factors.

An appreciation of ego strengths and weaknesses allows medico-surgical therapy to be planned in a more complete manner; an example of this is to assess whether a patient has sufficient stoicism to adjust to dialyses over years, or whether such a programme must be kept short with transplantation as the main goal.

Most patients seem to prefer to deny the need for transplantation, at least in the immediate present, and we have not yet had sufficient experience to know the deeper feelings of the patient who has a cadaveric transplant.

The Staff Needs

It has been said that a hospital is an "institution cradled in anxiety". We have noted in this paper some of the anxieties of patients and their families and some of their methods of dealing with them. But of course it is not only the patient or his relatives who worry about the outcome of the dialysis or the transplantation. All members of the team are exposed to great stress and tension, because they have to deal directly with anxious patients at moments of crisis. The psychiatrist can assist under these circumstances, and as a result the difficult acting-out patient is less likely to be rejected or dismissed as unco-operative, because his unconscious problems can be recognized and discussed. The staff members can be made aware of their own reactions at conscious levels and so handle the situation more rationally and perceptively.

The members of the team, being individuals, deal with anxiety and tension in their own particular ways. They belong to a variety of disciplines, surgical, medical, nursing and technical, so that attitudes, goals and even ways of relating to patients are subtly different by reason of temperament and training. This can cause some confusion in communication, since assumptions that seem self evident to one may not be so to another trained in a different specialty with a different value system.

Staff members, of course, develop a counter-transference to the patient and have a great amount of emotional investment in the situation. The team members have to learn something of

their own tensions, to tolerate their inability to be omnipotent, to understand and make allowances for the loss of love objects, namely the patients. It is a new and heavy burden for some members of the team to give intense emotional support over periods of months and years to patients and their families. This is a rewarding experience when events go well, but very difficult to tolerate when things go wrong and patients are reproachful or hostile.

Conclusions

As a result of the experience obtained by our multi-disciplinary team, we consider that the following are valid conclusions.

Firstly, that there is a place for psychiatric assistance in running a programme dealing with the maintenance of life by artificial means. This place is to assess patients and assist them at times of stress. It is also to aid and support the medical staff involved in this work, which causes tensions and strain to them and affects their understanding of the patient's problems. There is a role in aiding members of the patient's family, who inevitably suffer deeply during the period of prolonged stress imposed by the treatment. As our experience has increased, the psychiatrist has moved from being a relatively passive observer of what was to him a new and unfamiliar situation to being a more active therapist.

Secondly, it is important that the replacement of staff of all types be geared to the awareness that the patient will react emotionally and physically to the sense of loss which ensues. This understanding requires administrative action whereby suitable periods of overlap of staff movements can take place.

Thirdly, selection of patients is difficult in the extreme, as inevitably they must be assessed originally when they are ill with a chronic disease. Decisions based on emotional factors connected with the patients are usually made with insufficient basic information and require careful and full judgment if they are to be implemented.

Fourthly, the maintenance of life of a few patients imposes great problems and is expensive in time and staff; it must be considered as a community responsibility to make the decision on how many and whose lives should be maintained in this way. Acceptance of patients irrespective of their status or merits is one way of minimizing the moral and ethical problems involved in making such decisions. This method may of course be unacceptable to a community with limited facilities and finance. If this is so, we feel unable to lay down any recommendations as to the best methods of selection because of the impossibility of accurate assessment when this is needed.

Fifthly, in our programme we believe it is an advantage that our patient has the possibility eventually of receiving a transplanted kidney. This gives the patient something to hope for and provides the stimulus to carry him through periods of adjustment and to allow him to meet the emotional and physical crises which inevitably beset him in such a programme.

Summary

An account is given of the role of the psychiatrist in a Renal Unit operating a periodic dialysis and a renal homotransplantation programme. It is thought that he can provide important insights not only into the patient's current mental state, but also into the interactions between patient and family and between patient and staff.

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