

REPORT SUMMARY

1. BLOOD AND MARROW TRANSPLANTATION

There were a total of 896 haematopoietic stem cell transplantations reported to the Registry between 1987 and 2004; 595 were functioning at the end of 2004.

The majority of all transplants (72%) were for malignant disorders and most of these are haematological malignancies like leukaemia and lymphoma. The main non-malignant disorders transplanted were thalassaemia and aplastic anaemia.

There were 133 new transplantations done in Malaysia in 2004 with 9 centres of follow-up for transplant recipients.

Mean age of new transplant patients in 2004 was 23 ± 15 years; 59% were male, 44% Chinese. Autologous transplants accounted for 35%. Seventy-one percent of the transplant source was from peripheral blood stem cells and 92% were from HLA identical donors.

In 2004, 40 of prevalent transplant recipients died. Underlying disease, infection and GVHD were the commonest causes of death accounting for 53%, 23% and 23% respectively.

2. CORNEAL TRANSPLANTATION

There were a total of 1130 cornea transplantations reported to the Registry between 1998 and 2004. Cornea transplantation has been performed in Malaysia since the 1970's. The number of successful cornea transplantation performed has increased greatly in recent years due to an increased availability of good cornea tissues and more trained ophthalmologists, improvements in surgical technique and medical knowledge, and better healthcare facilities.

There were 43 centres which agreed to provide cornea transplantation data.

One hundred and seventy-four new cornea transplantations were reported in Malaysia in 2004, with complete data available on 138 cases.

Mean age of new transplant recipients in 2004 was 45 ± 21 years. Of these, 60% were male. 37% of recipients were Malay, 30% Chinese, 23% Indian and 9% other races.

The primary diagnoses for cornea transplantation recipients in 2004 were microbial keratitis (20%), keratoconus (18%), cornea perforation (16%), cornea scars (14%), other (non-pseudophakic) bullous keratopathy (9%), pseudophakic bullous keratopathy (10%) and failed previous cornea grafts (7%).

Eighty-two percent recipients were legally blind before their transplant surgery.

In 2004, 69% of donated corneas were from the USA, 16% from Sri Lanka and 15% from local sources. The mean age of the donors was 57 ± 15 years.

The commonest cornea transplantation surgery performed was penetrating keratoplasty (87%) i.e. transplantation of a full thickness cornea tissue.

3. HEART TRANSPLANTATION

There were a total of 15 heart transplantations reported to the Registry between 1997 and 2003; 6 grafts were functioning at the end of 2004 and all were followed up in Institut Jantung Negara. There were no transplantations done in 2004.

Two thirds of the recipients were males and 60% were Indians. The mean age of recipients was 37 ± 16 years. Ischaemic cardiomyopathy was the commonest primary diagnosis (8/15) followed by dilated cardiomyopathy (5/15).

Five recipients died in hospital following transplantation; four patients succumbed to late deaths after their heart transplant.

The transplant patient survival rate was 60% and 38% at 1 year and 3 years respectively.

4. LIVER TRANSPLANTATION

There were a total of 75 liver transplantations reported to the Registry between 1993 and 2004; 44 grafts were functioning at the end of 2004.

There were 14 new liver transplantations done in Malaysia in 2004 and 2 done overseas.

There were 4 centres of follow-up for liver transplant recipients in 2004.

Mean age of all transplant patients was 7 ± 14 years (range 4 months to 74 years); 56% were male, 53% Chinese, 76% were for biliary atresia. A majority was living donor liver transplantations (85%).

At the time of transplantation the main immunosuppressive drugs used were tacrolimus (73%) and steroids (52%).

Transplant patient survival rate for the cohort 1993 to 1998 was 71% at 1 year; survival rate for the cohort 1999 to 2004 was 66% at 1 year.

5. RENAL TRANSPLANTATION

There were a total of 2650 renal transplantations reported to the Registry between 1975 and 2004.

There were 57 centres of follow-up for renal transplant recipients in 2004.

The kidney transplant program was initiated in Malaysia after the first successful living related renal transplantation was carried out in Hospital Kuala Lumpur (HKL) on 15th December 1975.

The transplant program in Malaysia was almost exclusively a living related program until 1987 when many patients sought commercial living unrelated/cadaveric transplantation overseas.

In the early years, the local transplant program used an immunosuppressive protocol combining azathioprine and corticosteroids until 1992 when CsA based triple therapy was introduced.

New renal transplants showed a modest increase from about 30 new transplants per year in 1980 to 174 per year in 2004.

By 2004, the number of functioning renal transplants has increased steadily from 54 in 1980 to 1587.

Incident rates for renal transplantation showed modest increase from about 2-3 per million population in the early 80's to between 5-7 per million since 1990.

Transplant prevalence rates have also increased steadily from 4 per million population in 1980 to 62 per million in 2004.

The mean age for new transplant recipients has increased from 31±6 years in 1980 to 41±13 years in 2004.

Since 1975, men are in the majority among renal transplant recipients. However, the percentage has reduced from 70-80% in the early 1980's to 55-65% for the last 10 years.

Over the years, the proportion of diabetic transplant recipients have also increased, from hardly any in the early 1980's to 10-20% in the last decade,

In 2004, 61% were male, 19% diabetic, 6% HbsAg positive and 8% anti-HCV positive at the time of transplantation.

In 2004, 98% of prevalent renal transplant recipients were on prednisolone, 80% cyclosporine, 12% tacrolimus, 43% azathioprine and 36% mycophenolate mofetil.

In 2004, 32 (2%) of prevalent transplant recipients died and 43 (3%) lost their grafts. Infection and cancer were the commonest causes of death accounting for 29% and 17% respectively. Cardiovascular disease was the third commonest cause at 11%. Renal allograft rejection accounted for 70% of graft loss.

The overall transplant patient survival rates were 95%, 92%, 89% and 80% at 1 year, 3 years, 5 years and 10 years respectively, while the overall graft survival rates were 97%, 93%, 88% and 78% respectively (these survival rates are comparable to the USRDS data).

6. HEART VALVE TRANSPLANTATION

There were a total of 160 heart valve homografts reported to the Registry between 1996 and 2004; 141 grafts were functioning at the end of 2004. Eighty-one were aortic and 79 were pulmonary valves.

Mean age of all heart valve transplant patients was 11 ± 11 years (range 3 months to 70 years); 50% were male, 59% Malay.

7. BONE AND TISSUE TRANSPLANTATION

In 2004, 108 bone allografts and 1128 amniotic membranes were supplied by 3 bone and tissue banks in Malaysia.

Sixteen hospitals used the bone grafts and 10 centres used the amniotic membranes.