Pioneers in Cardiology

Sir Magdi Yacoub

Sir Magdi is a cardiothoracic surgeon best known for his work on cardiac transplantation and the “Switch Operation.” He was born on the 16th November 1935 in Bilbeis, Egypt. He studied at the Cairo University and graduated as a doctor in 1957. He went to Britain in 1962 and later on to Chicago where he taught for some time. He returned to England and became consultant cardiothoracic surgeon at the Harefield Hospital in 1973.

At that time there was a temporary ban on cardiac transplantation but in 1980 he restarted the programme and by a decade nearly 1000 procedures had been done. In this he was assisted by an excellent team.

He was so enthusiastic that he would travel long distances, even by air, to recover donor hearts. Most of this work was done under the National Heart Service. He was the first to carry out the lung lobe transplant.

Due to his assiduous post-operative care at Harefield the post-operative mortality rate declined as also did the recovery periods and subsequently, the financial costs.

He specialised in the Ross Technique or “Switch Operation” for transposition of the great vessels. He says that the highlight of his career is that he has had a chance to operate on patients of all ages.

During the 1980s and 1990s, concerns were expressed about a high mortality rate among paediatric patients treated for congenital heart disease at Harefield Hospital and another prestigious institution where Yacoub has worked, the Royal Brompton. An independent inquiry two years ago heard from 42 sets of parents whose children had been treated at the Royal Brompton and 7 whose children were treated at Harefield. Many of the children died; some suffered serious neurological injury following surgery; a few were treated successfully; and others had Down’s syndrome, where the parents questioned access to appropriate management. Although the inquiry did not find the hospitals negligent, and it concluded that the Royal Brompton and Harefield Hospitals are both centres of excellence providing high standards of clinical care, it did find faults and issued some 119 recommendations as a result.

He founded the “Chain of Hope” a charity institution to help needy children suffering from cardiac disorders. Either the children are brought to England for treatment or the surgeons go to developing countries to operate.

His interests in basic research have included looking at the role of growth factors in the development of coronary intimal hyperplasia and the antiproliferative activity of endogenous nitric oxide. He is also studying the use of cell transplantation in treating heart disease. And he is investigating the molecular, cellular, and functional characteristics of human heart valves, with a view to tissue engineering of such valves.

He is also very enthusiastic about the heart assist device, having implanted about fifteen of them and visualises that perhaps some day it may become a routine procedure.

He retired from the National Heart Services in 2001 but still operates occasionally. At present he is Founder and Director of Research of the Magdi Yacoub Research Institute, Harefield.

He has had the chance to operate on a large number of celebrities including his fellow Egyptian actor, Omar Sharif. He is married to a German lady and has three children. Of the many honours bestowed on him are:

1992 knighted by HM Queen Elizabeth II
1999 Lifetime outstanding Queen Elizabeth II
2001 The Cleveland Clinic Foundation Heart Failure Summit: Kaufman Awardee
2004 International Society for Heart and Lung Transplantation Lifetime Achievement Award
2006 European Society of Cardiology Gold Medal
2012 American College of Cardiology Legend of Cardiovascular Medicine

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