

## Vivek Rao, MSc, FRCSC, PhD, MD



Circulation Rounds on Sept 27th, 2011 brought students to Dr. Vivek Rao, an Associate Professor in Department of Surgery and the Surgical Director of the Heart Transplant program at Toronto General Hospital.

Dr. Rao completed his Ph.D at Institute of Medical Science, University of Toronto, where he was awarded the Salter-Siminovitch Award as the most outstanding PhD graduate in 1998. Dr. Rao completed his medical and surgical training also at the University of Toronto and is a CSCP alumni.

Current research interests include myocardial preservation for heart transplantation, ventricular recovery during mechanical circulatory support, influence of aortic valve size on survival following AVR, cell transplantation for end-stage heart disease, and molecular mechanisms underlying transplant coronary artery disease.

Dr. Rao's topic for the afternoon was "*Heart Failure Surgery: An Update on Recent Experimental Evidence*". In Dr. Rao's presentation, he discussed the complications of organ transplantation and the role that immunosuppressant play, modulating the immune response of the recipient. He emphasized the development of vasculopathy and the role of endothelial damage and subsequent dysfunction. Current studies show that immunosuppressants cause endothelial dysfunction after heart transplantation. Particularly, we focused on his past experimental evidence of endothelin-1 dysfunction, an endothelium derived activation factor. His talk was followed by an interactive discussion period.