

## New therapeutic intervention strategies in chronic allograft dysfunction - Meta analysis

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Kidney transplantation is the best therapy option for patients with end-stage renal disease, but immune injury from acute or chronic allograft rejection and non-immune causes, such as nephrotoxicity from calcineurin inhibitors (CNI), ischaemia-reperfusion injury, recurrent glomerular disease, allograft BK viral infection, systemic infection, cardiac failure, and malignancy are potential threats. Though significant progress has been made in preventing acute allograft rejection resulting in improved allograft survival, the long term function still remains disappointing. Chronic allograft dysfunction is the leading cause of long-term kidney transplant failure and is manifested by interstitial fibrosis, tubular atrophy, vascular occlusive changes, glomerulosclerosis and progressive renal dysfunction. Recent studies suggested that CNI nephrotoxicity causes arteriolar hyalinosis and striped fibrosis early post-transplant, as well as increased risks of cardiovascular disorders and of malignancies. Early therapeutic intervention strategies discussed minimizing chronic allograft dysfunction suggested CNI minimization or elimination and incorporating the use of mycophenolate mofetil (MMF) or proliferation signal inhibitors (PSIs)/mammalian target of rapamycin (mTOR) inhibitors. Currently everolimus which is a mammalian target of rapamycin inhibitor (mTOR-I)/proliferation signal inhibitor (PSI), displays potent immunosuppressive actions as well as antiproliferative effects by inhibitory vascular smooth muscle cell proliferation, thereby restricting vascular remodelling and neointimal growth. Also it has a potentially protective role on renal graft dysfunction which could simultaneously optimize the cardiovascular profile and reduce the incidence of tumors.

### Biography

Hesham M. H. Abdelkawy studied medicine in Egypt at the University of Cairo (M.D., 1994). He also received a diploma degree in hospital management from Helwan University Cairo, Egypt and an additional training of health policy and management and epidemiology for 2 years in Emory School of public health, USA. He received his Masters degree and Ph.D. from Pisa University and School of Medicine, Pisa, Italy. He has published his papers in reputed journals. He is working as a transplant nephrologist at the Ministry of Health Kuwait-Ibn Sina Hospital-Organ transplant Center.

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