

Overall research theme:

**Clinical epidemiology of ischemic heart disease and congestive heart failure**

Latest update:

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Characteristics of the research group:

This research group has activities within the fields of controlled clinical, clinical epidemiology and basic research. Activities in several fields are a deliberate decision aimed at improving the chance of allowing original combinations of methods and ideas to surface. Within basic research the group has for 4 years focused on endothelial dysfunction in diabetes. Basically this group studies endothelial function in healthy people exposed to interventions relevant to diabetes as well as diabetic patients exposed to interventions relevant to cardiovascular function. Lately we have taken up the technique of measuring proteins in the insulin signalling cascade in vascular tissue from subcutaneous fat biopsies.

Running projects: Titles and abstracts:

Studies in this field are based on the availability of a number of registers:  
TRACE register: 7000 AMI admitted to hospital 1990-1992. In hospital findings and follow up is available.  
TRACE study: 1749 AMI patients with reduced left ventricular dysfunction randomised to ACE inhibitor or placebo  
DIAMOND-CHF register: 5500 consecutive patients admitted to hospital with congestive heart failure. In hospital findings and follow up is available.  
DIAMOND-CHF study: 1500 patients with heart failure and left ventricular dysfunction randomised to the class III antiarrhythmic drug dofetilide or placebo.  
DIAMOND-AMI register: 8000 consecutive AMI patients admitted to hospital. In hospital findings and follow up is available.  
DIAMOND-AMI study: 1500 patients with AMI, left ventricular dysfunction randomised to the class III antiarrhythmic drug dofetilide or placebo.  
BEAT register: 2500 patients with AMI admitted to hospital during 1998-1999. In hospital findings and follow up is available.  
ECHOS register: ~~Appr.~~ 3000 patients with congestive heart failure admitted to hospital during 2001-2002.

The data in available databases allow studies of risk factors and depending on the database left ventricular function, ECG changes and a number of ~~D~~oppler echocardiographic measurements are available.

Currently approximately 10 studies are ongoing – focusing on symptomatic effect of ACE inhibition (as opposed to survival), differential studies of sudden and non sudden death after AMI, importance of diabetes after AMI and in patients with heart failure, differential importance of left ventricular function in AMI and heart failure, prognostic importance of diastolic left ventricular function.

*Recent publications related to the projects described above:*

1. Tapanainen J, Thomsen P, Kober L, Torp-Pedersen C, Makikallio T, Still A, et al. Fractal analysis of heart rate variability and mortality after an acute myocardial infarction. *Am J Cardiol* 2002;90(4):347.
2. Sorensen CR, Brendorp B, Rask-Madsen C, Kober L, Kjoller E, Torp-Pedersen C. The prognostic importance of creatinine clearance after acute myocardial infarction. *Eur Heart J* 2002;23(12):948-52.
3. Dominguez H, Torp-Pedersen C, Kober L, Rask-Madsen C. Prognostic value of exercise testing in a cohort of patients followed for 15 years after acute myocardial infarction. A reply. *Eur Heart J* 2001;22(17):1627.
4. Gustafsson I, Hildebrandt P, Kober L, Torp-Pedersen C. Long-term prognosis of diabetic patients with myocardial infarction: relation to antidiabetic treatment regimen. A reply. *Eur Heart J* 2001;22(15):1361.
5. Ottesen MM, Kober L, Jorgensen S, Torp-Pedersen C. Consequences of overutilization and underutilization of thrombolytic therapy in clinical practice. TRACE Study Group. TRAndolapril Cardiac Evaluation. *J Am Coll Cardiol* 2001;37(6):1581-7.
6. Pedersen OD, Bagger H, Keller N, Marchant B, Kober L, Torp-Pedersen C. Efficacy of Dofetilide in the Treatment of Atrial Fibrillation-Flutter in Patients With Reduced Left Ventricular Function: A Danish Investigations of Arrhythmia and Mortality ON Dofetilide (DIAMOND) Substudy. *Circulation* 2001;104(3):292-296.
7. Gadsboll N, Torp-Pedersen C, Hoilund-Carlsen PF. In-hospital heart failure, first-year ventricular dilatation and 10- year survival after acute myocardial infarction. *Eur J Heart Fail* 2001;3(1):91-96.
8. Melchior T, Rask-Madsen C, Torp-Pedersen C, Hildebrandt P, Kober L, Jensen G. The impact of heart failure on prognosis of diabetic and non-diabetic patients with myocardial infarction: a 15-year follow-up study. *Eur J Heart Fail* 2001;3(1):83-90.
9. Abdulla J, Brendorp B, Torp-Pedersen C, Kober L. Does the electrocardiographic presence of Q waves influence the survival of patients with acute myocardial infarction? *Eur Heart J* 2001;22(12):1008-14.
10. Elming H, Seibaek M, Ottesen MM, Torp-Pedersen C, Holm E, Thode J, et al. Serum-ionised magnesium in patients with acute myocardial infarction. Relation to cardiac arrhythmias, left ventricular function and mortality. *Magnes Res* 2000;13(4):285-92.
11. Brendorp B, Elming H, Jun L, Kober L, Malik M, Jensen GB, et al. QTc Interval as a Guide to Select Those Patients With Congestive Heart Failure and Reduced Left Ventricular Systolic Function Who Will Benefit From Antiarrhythmic Treatment With Dofetilide. *Circulation* 2001;103(10):1422-1427.
12. Brendorp B, Elming H, Jun L, Kober L, Malik M, Jensen GB, et al. QT Dispersion Has No Prognostic Information for Patients With Advanced Congestive Heart Failure and Reduced Left Ventricular Systolic Function. *Circulation* 2001;103(6):831-835.