PARALLEL SESSION 2 – THURSDAY JUNE 20TH 2019, 17h45 – 19h15

Behavioral and psychosomatic progress in Psycho-Cardiology

- H-Ch. Deter, et al.: Health promotion in Usual Care: Lessons to be learned from Randomized Controlled Trial’s in Coronary Heart Disease (CAD)
- K. Orth-Gomér, H-Ch. Deter: Mortality predictors and Survival: Results from the Stockholm Female Coronary Risk study
- Ch. Herrmann-Lingen: Sex differences in the association between N-terminal pro B-Type natriuretic peptide (NT-proBNP) and anxiety in patients with heart failure and preserved ejection fraction

**Theme**
Common Symposium of the International Society of Behavioral Medicine and the European Association of Psychosomatic Medicine. New attempts were made to increase empirical evidence of psychosocial factors and will be included in the 7th Edition of European Guidelines of Cardiovascular Disease Prevention (C. Albus, Cologne, A. Stauder, Budapest). Usual care in Coronary Artery Disease and the strategies to increase the psychosomatic quality in usual care will be described (H. C. Deter, Berlin). To understand mechanisms for the outcome in these diseases long term follow up data of the Swedish FEMCORISK-Study (K. Orth Gomér, Stockholm) and a new study on Sex differences in the association between N-terminal pro B-Type natriuretic peptide (NT-proBNP) and anxiety in patients with heart failure (C. Herrmann-Lingen, Göttingen) are presented. The influence of workstress on psychosomatic symptoms will be elucidated by A. Stauder, Budapest.

**Takeaways**
Information on psychosocial risk factors in CAD and heart failure. Chances to influence cardioiological care through behavioral and physiological risk factor management. Understanding, which mechanism are useful to improve usual care.

**Chair:** Hans-Christian Deter, Prof., Charité, DE

**Co-chair:** Adrienne Stauder, PhD, Dept. Behavioral Medicine, HU
Health promotion in Usual Care – Lessons to be learnt from Randomized Controlled Trial’s in Coronary Heart Disease (CAD)

Aim
Many interventions have demonstrated a benefit and health promoting effect in the “usual care (UC)” group. We wanted to analyse the reasons for these effects.

Methods
In this study we have examined the control condition (1) from eight consecutive behavioural RCT’s in up to 2481 patients with CAD.

Results
We found a decrease of symptoms in up to 48% of cases in UC. The mortality and recurrence rate of events depends on the year the study was published (1986-2016) and the follow up time of the study (0.25-7.8 years). Depressive symptoms can be reduced in UC by spontaneous remission or other mechanisms such as optimism and resilience after a helpful experience. Beside study differences, which may influence control group efficacy, the clinical competence, the therapeutic techniques and the physician’s behaviour are important (2). There is also a need to identify patients at risk of remaining depression or severe stress and patients, who don’t need additional psychotherapy.

Conclusion
We found in eight consecutive studies, that the control condition was highly variable. If the responsible cardiologist used some further minutes of his precious time, he was much awarded. In selected cases behavioural studies showed an additional independent treatment effect on depression and - if replicating - effects on morbidity and mortality, which may be even stronger than today.

Reference

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Mortality predictors and Survival – Results from the Stockholm Female Coronary Risk study

Aim
Behavioural and physiological risk factors are known to worsen prognosis of Coronary Artery Disease (CAD) in women. Negative affect, (type A, type D) is a psychosocial predictor of CAD, particularly in women. We investigated whether these factors were associated with survival.

Methods
We examined 284 women (mean age 56 ± 7 y) with CAD from the Stockholm Female Coronary Risk (FemCorRisk) study. Their cardiac, behavioral and psychosocial risk profiles, exercise, smoking and dietary habits were assessed by standardized processes (1). The physiological mechanisms included a full lipid profile, the clotting cascade and heart rate variability (HRV). The impact of physiological mechanism was compared to standard risk factors. The impact of mortality was assessed in the national register, follow up period was 10 to 18 years.

Results
In multiple regressions the behavior type A was the strongest psychological predictor (p=0.007) followed by ApoB/ApoA lipoprotein ratio (p=0.012), a measure closely connected with LDL. From the coagulation cascade the v.Willebrand factor (p=0.006) were a significant predictor for mortality as well as the total power as indicator of HRV (p=0.011) and sedentary life style (p=0.002).

Conclusion
The data confirmed our hypothesis of the influence of psychosocial risk factors for long term outcome and mortality in female CAD patients. Type A in women is known to play an important role. This will be further analysed.

Reference

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Sex differences in the association between N-terminal pro B-Type natriuretic peptide (NT-proBNP) and anxiety in patients with heart failure and preserved ejection fraction

Aim
Natriuretic peptides are established severity markers for heart failure. However, previous research suggests that they may have an anxiolytic-like effect. We used data from the Aldo-DHF trial of spironolactone for heart failure with preserved ejection fraction (HFpEF) to test whether a) the inverse association of NT-proBNP with anxiety can be confirmed in heart failure patients, both men and women, and b) baseline NT-proBNP also predicts future anxiety.

Methods
We correlated baseline NT-proBNP with Hospital Anxiety and Depression Scale anxiety (HADS-A) scores at baseline and 12 months. Multivariate regression was performed with HADS-A as dependent and baseline NT-proBNP as predictor, controlling for physical function and treatment assignment. Baseline HADS-A and NT-proBNP were available for 178 men and 195 women (67.0±7.5 years old).

Results
Baseline NT-proBNP was significantly related to reduced physical function (rho=-.122; p=.022) but inversely correlated with baseline HADS-A at trend level (rho=-.096; p=.065). Anxiety and physical function were interrelated (rho=-.244; p<.001). Controlling for physical function, the negative association between NT-proBNP and HADS-A became almost significant (rho=-.101; p=.051). Regardless of treatment assignment, log(NT-proBNP) significantly predicted lower HADS-A at baseline (beta=-0.176; p=.014) and 12 months (beta=-0.160; p=0.035) in men but not in women.

Conclusion
Higher NT-proBNP indicates more severe disease but is related to lower anxiety in patients with HFpEF. This effect is limited to men, in whom baseline NT-proBNP independently predicts anxiety even one year later.

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Updating the European Guidelines on cardiovascular disease prevention in clinical practice: New evidence and unsolved problems regarding the management of psychosocial risk factors

Aim
The 2016 European guidelines on CVD prevention in clinical practice include recommendations on the management of psychosocial risk factors in CVD patients. Aim of this talk is to review the newest literature on psychosocial risk factor management and to discuss possible implications for the next update of the guideline.

Methods
Narrative review of the literature since the publication of the 2016 European Guidelines on CVD prevention.

Results
In the recent guideline, core questions were recommended to systematically screen for low socioeconomic status, lack of social support, stress at work and family life, depression, anxiety, personality traits like hostility and the Type D pattern, and further mental disorders. But, recent evidence suggests that these screening items are of limited reliability and need refinement. Furthermore, so called “multimodal interventions” including physical exercise, education and psychological interventions are recommended for patients with CVD and psychosocial risk factors. However, according to a most recent meta-analysis, there is only limited evidence for the added value of psychological interventions on top of exercise-based rehabilitation. In addition, psychotherapy, antidepressants or collaborative care are recommended in case of clinically significant symptoms of depression and/or anxiety. However, until 2016 there was no convincing evidence that psychotherapy or antidepressants can alter CV prognosis. This talk will also summarize the most recent evidence on subjective and objective outcomes of antidepressant treatment in CVD patients.

Conclusion
There is considerable evidence that the recommendations on psychosocial risk factor management of the 2016 European Guidelines on CVD prevention need revision.

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