

psychosocial functioning but also on the physical aspects of HRQOL. Our findings highlight the need for standard psychiatric evaluation and management of cancer survivors in routine clinical care.

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Synergistic Effect of Severe Depressed Mood and Obesity on Type II Diabetes Incidence: Findings from the MONICA/KORA Cohort Study

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Aims: Although it has been established that obesity and depression both contribute to individual level risk of type II diabetes (T2DM), the extent to which obesity can be offset by depression remains unknown. The present study aims to assess the impact of obesity and depression in the development of T2DM in a large cohort of obese patients.

Methods: In a sample of 9340 participants, we assessed the risk of T2DM in obese participants (BMI \geq 30) with none, moderate and severe depressed mood at baseline who participated in the prospective MONICA/KORA population-based cohort conducted in Southern Germany (baseline examination 1989-1995; mean follow-up time of 19.6 years).

Results: In the total population, obesity was associated with a 7.8 fold higher risk for T2DM (HR 7.8; 95%CI 6.26 to 9.73; $p < .0001$) than that for normal weight participants, whereas severe depressed mood only increased the risk of T2DM by 29% (HR 1.29; 95%CI 1.06 to 1.57; $p = .009$). However, among obese subjects with severe depressed mood, the risk of T2DM increased by over 12 fold (HR 12.58; 95%CI 8.23 to 19.24; $p < .0001$), and among obese subjects with moderate depressed mood, the risk of T2DM increased by over 10 fold (HR 10.46; 95%CI 7.29 to 14.99; $p < .0001$) in comparison to normal weight subjects without depressed mood.

Conclusion: Among 9340 participants, obesity and severe depressed mood were independently associated with increased risk of T2DM. However, despite the substantial risk of obesity, its synergistic effect with depressed mood was associated with an additional 4 fold risk of T2DM.

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Salivary cortisol and cortisone: UPLC-MS/MS method validation and temporal variability over one week

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Aims: The present study aims to provide a comprehensive analytical and biological validation of an ultra-performance liquid

chromatography-tandem mass spectrometry (UPLC-MS/MS) method for analysis of salivary cortisol and its inactive metabolite cortisone. Variation in cortisol awakening response (CAR) over one week were investigated.

Methods: Saliva samples were collected from 19 healthy volunteers. To determine CAR, participants collected saliva samples at three time points: immediately after awakening, 15 and 30 minutes thereafter. The same procedure was repeated each morning over one week period. In addition, all participants filled in diaries containing information about duration of sleep, time of awakening, smoking, and coffee and alcohol intake. Upon collection, the saliva samples were stored at -20°C until analysis. Prior to analysis, the saliva samples were thawed and spiked with internal standard and extracted using solid phase extraction columns (Oasis Prime-HLB). The identification and quantification of cortisol and cortisone were performed using the developed UPLC-MS/MS method, on a Waters Aquity TQ-XS system.

Results: The obtained limits of quantification (LoQ) were 1ng/ml for cortisol and 500pg/ml for cortisone. Intra-assay accuracy values of calibration points were between 83-111%. The mean levels of cortisol and cortisone in the total sample were 3.55 ± 1.99 ng/ml and 10.51 ± 3.46 ng/ml, respectively. In the first 30 minutes after awakening, there was a 70% increase in the average cortisol levels (CAR) and a 49% increase in the levels of cortisone. A high intra-individual variability of CAR was observed over the week (CV ranged between 17.9-68.9%), whereas the inter-individual variability of the average CAR equaled 28.2%. Furthermore, the changes in CAR were related to variables from participants' diaries.

Conclusion: The UPLC-MS/MS method has shown to be a sensitive and specific technique for determination of salivary cortisol and cortisone. However, in the clinical context, CAR data should be interpreted with precaution due to high inter- and intra-individual variability.

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Anxiety is prevailing in non-cardiac chest pain subjects, while Somatisation is not. A comparative study in the Emergency Department

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Aims: The present study aims to assess if non-cardiac chest pain (NCCP) subjects recruited in an Emergency Department were more anxious, depressive or burdened by somatoform symptoms as compared with cardiac chest pain (CCP) subjects, and with subjects without chest pain (WOCP).

Methods: Patients with chest pain not attributable to a gastro-oesophageal reflux disorder were included in the study. NCCP subjects were negative at ECG examination and at troponin test at baseline and after three months. A number of instruments were administered, measuring anxiety and depression (HADS), somatization (somatization scale of SCL-90, TAS-20), and the health-related QoL (SF-12), along with other scales measuring the social and experiential profile.

Results: 435 subjects (of which NCCP were 44.8%) were recruited in the Emergency Department, while other 147 subjects were recruited in a primary care clinic. Logistic regression analysis showed that the levels of HADS anxiety in the three groups were dissimilar, even when adjusted for confounding variables: taking NCCP as reference category, adjusted ORs were 0.64 for CCP (CI95% 0.42-0.96) and 0.23