

SOMATIC COMORBIDITIES AND MORTALITY IN SCHIZOPHRENIA

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Schizophrenia is associated with high morbidity as compared to the general population or to matched controls. The aim of this presentation is to address the roll of somatic comorbidities in the high mortality rates of patients with schizophrenia.

Recent mortality data will be presented based on the analyses of nationwide full population registries (Canada (Gatov et al. 2017) and Hungary (Bitter et al. 2017)) or large cohorts. The roll of antipsychotic treatment in the survival of patients with schizophrenia will be presented by using nationwide, registry based data from Finland (Tiihonen et al. 2009) and Sweden (Tiihonen et al. 2015).

The Hungarian nationwide data show a 2.4 times increased risk of death in schizophrenia as compared to matched (age, sex and postal code) controls; the Canadian nationwide data show, that "mortality rates among people with schizophrenia were 3 times higher than among those without schizophrenia". The Hungarian data indicate a large risk increase in the younger groups of patients (RR=13 below the age of 20 years and RR=6.4 in the age group >20 - <40 years). While the sex ratio of mortality rates in schizophrenia has a similar pattern as in the general population (higher mortality for males than females), the risk increase of death of female patients with schizophrenia is higher those of male patients. The largest increases in the risk of death as compared to matched controls were found in the case of the following comorbidities: Acute lower respiratory infections; External causes of morbidity and mortality (according to the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10)-WHO Version, 2016); Other infections; Neoplasms. Based on Finish and Swedish nationwide data anti-psychotic treatment as compared to no antipsychotic treatment decreases mortality in schizophrenia.

The large increase of comorbidities and the higher rate of mortality associated with comorbidities in schizophrenia call for an improvement of graduate and postgraduate medical education and training and for new preventive actions, such as smoking cessation programs for patients with schizophrenia.

References:

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GUT-BRAIN-AXIS - MICROBIOME IN AFFECTIVE DISORDERS

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The gut microbiota is well known for its role on well-being and health (Fung et al. 2017). Most importantly, the gut microbiota is not only responsible for gastrointestinal homeostasis and digestion. Microbiota and dietary components may affect disease pathogenesis by neural, endocrine and immune pathways (Salagre et al. 2017). Release of pro-inflammatory cytokines, increased intestinal permeability (so called "leaky gut"), and alterations of immune response are examples how chronic inflammatory pathways leading to disturbances in mental health, can be activated and mediated by microbiota and their products (Sturgeon & Fasano 2016). Furthermore, the digestive system is the producer of more than 90% of serotonin in our organism and may therewith play a major role in mental diseases (Salagre et al. 2017). According to recent research, the microbiota are likely to have effects on brain function and behaviour, including affect, motivation and higher cognitive functions (Ait-Belgnaoui et al. 2014, Alamet al. 2017, Frohlich et al. 2016, Wallace & Milev 2017). Furthermore, in animal-based research, the beneficial influence of intestinal microbes on brain development and microglia function was evident (Hoban et al. 2017, Lowry et al. 2016). An imbalance of the communication between gut microbiota and the CNS may therewith lead to neuropsychiatric disorders such as depression (Ait-Belgnaoui et al. 2014, Evrensel & Ceylan 2015).

A strategy to examine the role of the microbiome in different diseases is the intake of supplements that modulate the gut microbiome. Probiotics are defined as living micro-organisms that reconstitute the gastrointestinal barrier (Huang et al. 2016). If taken in certain amounts, some evidence suggests