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DOES GERONTOPSYCHIATRY BELONG TO MEDICINE? CROSS-SECTIONAL STUDY MONITORING POLYMORBIDITY IN HOSPITALIZED GERONTOPSYCHIATRIC PATIENTS

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Background. A cross-sectional study has been designed and the study observes the prevalence of polymorbidity in senior inpatients suffering from psychiatric morbidity hospitalized in gerontopsychiatric ward in one of the biggest psychiatric hospitals in the Czech Republic. The aim of the study is to prove that gerontopsychiatry is a comprehensive specialization for both doctors and nurses and should not be viewed as a low-status medical specialization.

Methods and results. A cross-sectional study comprising of 304 patients was designed and a simple descriptive analysis of the patients' medical records was carried out. Polymorbidity and serious somatic conditions were present in senior patients hospitalized in gerontopsychiatric ward. Polypharmacy is a widespread phenomenon and has hazardous side effects for the treatment of patients. Last but not the least it also makes the treatment more expensive.

Conclusion. Both doctors and nurses working in gerontopsychiatry should have a comprehensive interdisciplinary knowledge that would help in both early detection of many serious somatic conditions and in the improvement of the reputation of gerontopsychiatry.

INTRODUCTION

The laymen population of the Czech Republic tends to disregard Gerontopsychiatry. This sub specialization of psychiatry suffers from inadequate financial support, surprisingly the same situation as in the Czech Republic is sometimes seen in other parts of the world[1]. Concept of gerontopsychiatry in world is undergoing new modifications respecting new challenges of society and the needs of modern society[2-3].

In the Czech Republic many seniors with psychiatric morbidity are hospitalized in traditional institutions, such as psychiatric hospitals, geriatric hospitals or general hospitals. These institutions maintain very often rigid and stereotypical management of therapy, non complying with the holistic approach and biopsychosociospiritual concept of patients' needs[4]. Many senior citizens – especially those with psychiatric morbidity such as severe dementia – were allocated in psychiatric hospitals by their own families which simply refuse taking care of them[5].

Hence, the burden put on gerontopsychiatry increases. Gerontopsychiatrists and nurses come across patients with both psychiatric diseases (like dementia, delirious states or affective disorders) and somatic diseases as well. They are entirely responsible for the management of treatment of both psychiatric and somatic conditions. Therefore knowledge of all parts of medicine is needed. A typical patient hospitalized in gerontopsychiatric ward is suffering from somatic polymorbidity, including non-communicable diseases, and polypharmacy (Table 1).

Somatic polymorbidity means the presence of two or more diseases in an individual at the same time. In geriatrics and gerontopsychiatry clusters of both somatic and psychiatric diseases are a typical characteristic feature[6, 7].

Non-communicable diseases represent a shift in morbidity in the 21st century compared to the morbidity of former centuries. While infectious diseases were threatening conditions in 19th century and the beginning of the 20th century (tuberculosis, poliomyelitis, wound infection, puerperal sepsis), the 21th century brings pandemia of new diseases such as obesity, hypertension, diabetes mellitus or musculoskeletal diseases. Non-communicable diseases (NCD's) have both economical and ethical aspects[8].

Polypharmacy represents an administration of more medication than is in fact needed, or administration of drugs in unsuitable combination. Usually it means admin-

Table 1. What makes treatment of diseases in senior age difficult?

What makes treatment of diseases in senior age difficult?
– Somatic and psychiatric polymorbidity
– Presence of non-communicable diseases
– Polymorbidity – risk of side / adverse effects
– Changes in pharmacokinetics
– Changes in pharmacodynamics

istration of more than 4 drugs at the same time. The risk of polypharmacy increases with the age of patients and polymorbidity[6, 7, 9, 11]. Polypharmacy also increases total expenditures spent on health care[12].

Diseases of senior citizens usually have a modified clinical picture, accompanied by microsymptomatology (the symptoms of diseases are less expressed than in the general population, for instance, in bacterial infections fever or leukocytosis can be missing), monosymptomatology or oligosymptomatology (symptoms of diseases can be expressed only by one or several symptoms instead of typical syndromology, for instance thyreotoxicosis can be revealed only by atrial tachyfibrilation or weight loss without the other typical symptoms), non-specific clinical signs (such as anorexia, fatigue, malaise, which can be observed in many different conditions), symptoms of secondary deterioration (first clinical signs of a disease comes from the organ with the worst adaptation and the worst functional status, for instance delirious states as cerebral dysfunction caused primarily by bacterial infection), cascades of clinical signs (clinical signs coming from deterioration of more organs – „domino effect“ of primary pathological condition), atypical adverse effects of therapy (due to changes in pharmacodynamics and pharmacokinetics of used drugs), risk of acute or emergent deterioration of performance status because of disease, high potential of invalidity caused by a disease (loss of autonomy, loss of independence in activities of daily living), social impact of a disease (risk of hospitalization and institutionalization) (Table 2)[7, 10].

Table 2. Features of morbidity in senior age.

Features of morbidity in senior age
– Microsymptomatology
– Monosymptomatology or oligosymptomatology
– Non-specific clinical signs
– Symptoms of secondary deterioration
– Cascades of clinical signs
– Atypical adverse effects of therapy
– Risk of acute or emergent deterioration of performance status because of disease
– High potential of invalidity caused by a disease
– Social impact of a disease

Translated and modified according to Topinkova et al.[7]

METHODS

A cross-sectional study of 8 gerontopsychiatric wards located in the Psychiatric hospital Kromeriz which is one of the biggest psychiatric hospitals in the Czech Republic was carried out. The study consisted of 304 patients (101 men, 203 women) hospitalized in gerontopsychiatric wards from February 2009 to June 2009. A descriptive analysis of medical records and patients' anamneses was carried out. Patients were not exposed to any ethical issues. The Helsinki declaration on research was respected.

RESULTS

Characteristic of group	
Number of patients	304
Age of group	71.2 years (mean) standard deviation: 6.2
Men	101
Age of men	67.3 years (mean) standard deviation: 5.8
Women	203
Age of women	74.6 years (mean) standard deviation: 6.7

Polymorbidity, polypharmacy in studied group	
Without any somatic condition	13 patients (4.3%)
With some somatic condition (1 and more diagnosed diseases)	291 patients (95.7%)
Somatic polymorbidity (2 and more diagnoses)	201 patients (66.1%)
Polypharmacy	
– more medication than needed, after review of medication	156 patients (51.3%)
– unsuitable combination of drugs	46 patients (15.1%)

Internal polymorbidity in studied group	
Arterial hypertension	182 patients (59.9%)
Hyperlipidemia of any type	121 patients (39.8%)
Angina pectoris, ischemic coronary disease	56 patients (18.4%)
Flebotrombosis, deep venous thrombosis	13 patients (4.3%)
Pulmonary emboli as a complication during hospitalization	4 patients (1.3%)
Diabetes mellitus, well compensated	88 patients (28.9%)
Decompensated	13 patients (4.3%)
Other endocrinological conditions (hypothyreosis etc)	7 patients (12.2%)
Rheumatologic conditions	42 patients (13.8%)

Neurological conditions in studied group	
Cervicalgia, thoracalgia, lumbalgia or sacralgia	98 patients (32.2%)
Stroke during hospitalization	3 patients (0.9%)

Surgical conditions in studied group	
Falls during hospitalization	22 patients (7.2%)
Brain commotion as a result of falls	1 patient (0.3%)
Fractures as a result of falls	2 patients (0.6%)
Acute abdominal states – ileous states during hospitalization	6 patients (1.9%)
Acute cholecystitis during hospitalization	3 patients (0.9%)
Acute pancreatitis during hospitalization	2 patients (0.6%)
Wounds as a result of falls during hospitalization	8 patients (2.6%)

Gynecological conditions in studied group	
Metrorhagia	in 7 patients (2.3%)
Breast pathological conditions – diagnosed as a result of the presented study	9 patients (2.9%)

Dermatological conditions in studied group of any type	
22 patients	(7.2%)
Visual or hearing disturbances in studied group	
124 patients	(40.8%)

Infectious conditions in studied group	
First diagnosed:	
Hepatitis type A	3 patients (0.9%)
Hepatitis B	5 patients (1.6%)
Hepatitis C	none (0.0%)
Tuberculosis	9 patients (2.9%)

Oncological surveillance	
suspecting tumor	16 patients (5.3%)
Life threatening conditions with cardiopulmonary resuscitation	
12 patients (3.9%)	

CONCLUSION

Gerontopsychiatrists and nurses working in gerontopsychiatry are sometimes disregarded as low-status health care professionals. In the Czech Republic gerontopsychiatry is still a specialization with very low attraction. The situation concerning the reputation of gerontopsychiatry can be different in other parts of the world. Our research is a small contribution to gerontopsychiatry showing that there is no reason to discriminate gerontopsychiatry as a subordinated medical specialization. Both doctors and nurses taking care of senior patients with psychiatric morbidity have to be skillful and have a comprehensive knowledge of all parts of medicine.

In our study, polymorbidity of senior patients hospitalized in gerontopsychiatric wards with psychiatric diagnosis was common. Polypharmacy was detected in our study in 51.3% of patients incoming for hospitalization and requiring corrections in therapy (taking into account the risks of side effects of used drugs and expenditures of the treatment).

The most frequent conditions in hospitalized senior citizens with gerontopsychiatric morbidity were: arterial hypertension, hyperlipidemia, dorsalgia, visual and hearing disturbances, diabetes mellitus.

Gerontopsychiatrists in the Psychiatric hospital in Kromeriz helped to indentify some oncological conditions in early stages in 5.3% of the cases, this fact underlines the importance of oncological screening and oncological surveillance.

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