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Territorial-Geographical Aspects, Pharmaco-Epidemiology and Prophylactic Characteristics of the Origin, Clinical Course and Complications of Comorbidity in the Geront Population (Literature Review)

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Abstract The authors have analyzed the origin, clinical course and complications of comorbidity in the geront population, regional-geographical aspects, pharmaco-epidemiological and preventive features, showing the relevance and necessity of the topic. In conclusion, it is generally concluded in most studies that drugs may increase the risk of fatal complications or toxicity in the geront population with iatrogenic multimorbidity syndrome. Gerontial patients always need "majority" supervision by relatives or medical personnel, especially in the case of comorbid diseases. This requires the improvement of the epidemiological, preventive and pharmacoepidemiological monitoring system in the geront population.

Keywords Epidemiological, Preventive and pharmacoepidemiological monitoring comorbidity, Population in geront esh, Drug iatrogenic

1. Introduction

It is worth noting that the influence of risk factors on the origin and development of comorbidity is more evident from the literature review. Diagnostic, screening - clinical pharmaco-epidemiological characteristics and preventive bases of comorbidity in geronts are mainly highlighted in clinical studies. It can be said that in the geront population, regionally and geographically, the prevalence of comorbidity is underestimated in routine clinical practice. Based on this, it can be assumed: the true prevalence of comorbidity (which is determined only in epidemiological studies) is higher than the generally accepted indicator.

Klip I.T. et al. (2013) studied the comorbidity of iron deficiency in chronic heart failure in 1506 individuals from Poland, Spain and the Netherlands. Such comorbidity was found in 50% of clients. The prognostic value of iron deficiency has been confirmed. In the presence of this factor, the frequency of occurrence of "endpoints" caused by heart failure is doubled [23].

Jacob C. et al. (2019) studied 2,223 chronic heart failure patients in a retrospective cohort study in Austria. End points (death, heart transplant) combined with anemia comorbidity in chronic heart failure were detected in 62% of patients, in cases of anemia - 37% frequency [21].

In comorbidity, the issue of pharmacotherapy has a special place. In order to coordinate and secure therapy in the geront population, several algorithms for reducing the risk of polypharmacy have been developed and recommended for practice by researchers and scientific societies abroad and in Russia [15,29].

In order to prevent the risk of polypharmacy in the geront population, it is recommended to use the following questionnaires and algorithms: Prescription optimization method [13], Structured history taking of medication use guestiommaire [14], " Palliative approach to solving the problem is polypharmacy in elderly patients" [8], scale ASV [Anticholinergic Cognitive Burden] [31], Medication Appropriateness Index [18], AGS [2] and START/STOPP

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criteria [28].

Evidence suggests that most researchers in the geront population should always consider nonpharmacologic treatment first.

Even the study of Turnheim K. (2004) became known to us, in which the author asked gerontological and geront ages - is it necessary to use a pharmacological drug at all or is there a need for it? - the question is put crosswise [34].

Various system diseases contribute to comorbidity characteristically and differentially, in which increasing age is different and takes the leading place. Yardaniar A. et al. According to (2000), polypharmacy / polypharmacotherapy can be one of the factors that worsens the course of diseases in the gerontological and geront age population, in particular, the course of comorbid diseases [35].

Benjamin E.J. et al. (2019) avoiding the principle of "a pill for every ill" for geront patients, strictly monitoring the treatment process with a multidisciplinary (team) approach, adding over-the-counter drugs and biologically active supplements, and limiting the number of doctors who prescribe drugs confirmed that it is appropriate to follow the rules as much as possible [6].

The question of reducing the risk of pharmacotherapy in the gerontological age population, mainly in clients with a comorbid background, Steenman M. et al. [33], Curties A.B. et al. [11], Meschiari C.A. et al. [27], Dee P.A. et al. [12], Burstein B. et al. [9] and Khan M.A. et al. It was also raised by foreign researchers such as [22] and made separate recommendations in this regard. For example, the reference to international clinical recommendations not to be used as a "Chinese wall" in the geront population comes from them.

In addition, the mentioned sources give clear conclusions on reducing the risk of pharmacotherapy against the background of cardiocomorbidity in the gerontological and geront population: 1) the risk of comorbidity in CKD after 60 years - 77.2% (in men) and 78.2% (in women), from 80 years - 89 .3% and increases to 91.8%; 2) geronts dramatically increase the risk of heart failure, arrhythmias (mainly atrial fibrillation) and arterial hypertension; 3) against the background of cardio comorbidity, the main pathogenetic factors causing and aggravating HD (proinflammatory markers and oxidative stress level, apoptosis, cardiomyocyte aging process, degenerative processes, interleukin-6, α-tumor necrosis factor, S-reactive protein) are aggravated, firstly, cardiac pathologies, for example, increases the frequency of CHD and secondly their risk when the geront gets older.

As a result of comorbidity in CD (for example, atherosclerotic diseases), there are diseases noted with high frequency in the geront population - AG (85.6% and 80.0% are observed in women and men), CD (15,000 to 100,000 people), myocardial infarction (from 11.5% and 4.2% of men and women), ventricular fibrillation (10.0%) and strokes (up to 23.5%) are counted [9,22,25,26].

Another factor that should be considered or considered important in the treatment of comorbid conditions in the geront population is that this population is often shown in studies to have a relatively low level of fear of drugs (drug habituation) and adherence to pharmacotherapy. Haynes RB, McDonald H. et al. (2002), Bloom B.S. (2001) and Benner J.S. et al. (2002) according to the presented scientific results, for example, more than 50% of the elderly of gerontological -geront age do not adhere to prescribed pharmacotherapy for chronic (comorbid) diseases [5,7,19].

Kronish I.M. Diefenbach MA, Edmondson DE. et al. (2012) convincingly confirm that one of the main reasons for the fear or anxiety of drug addiction (DD) in geront patients is the formation of a completely wrong view of the presence of certain problems of the drug being used. In addition, gerontological age and gerontology-related memory decline, cognitive impairment, fear and hearing loss, and of course health comorbidities and reduced obligations to respond to medications [24].

Anderson L.J. is one of the reasons why comorbid diseases are increasing in the geront population and in the elderly in general. et al. [4] and Sergi G. et al. According to [32], it is a complex pharmacotherapy regimen or Greeberg R.N. [17] and Claxton A.J. According to scientific conclusions presented by et al [10], the percentage of pharmacotherapeutic obligation fulfillment and related problems of geriatric-geront comorbidities increase as the frequency of taking DD increases: when the drug is taken once a day - 73-79%, twice when drinking - 69-70%, when drinking three times - 52-65%, and when drinking 4 times - 42-51%.

Confirmation of negative effects as a risk factor for comorbidity (total of 15 cases) as well as polypharmacotherapy was reliably reported and confirmed by the following researchers: Alosco M.L. et al [1], Herringer C. et al. [20], Al Shaikh S. et al. [3], Rohde D. et al. [30] and Gelled W.F. et al. [16].

2. Summary

Therefore, it is generally concluded in most studies that drugs may increase the risk of fatal complications or toxicity in the geront population with iatrogenic multimorbidity syndrome. Gerontial patients always need "majority" supervision by relatives or medical personnel, especially in the case of comorbid diseases. This requires the improvement of the epidemiological, preventive and pharmacoepidemiological monitoring system in the geront population.

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