

Polypragmas and its Significance in Medicine

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Abstract: The desire to improve the effectiveness of treatment, to help the patient get rid of all the specific diseases, inevitably leads to the appointment of a large number of drugs (PM) - polypharmacy. Currently, polypharmacy as a result of iatrogenics is a serious health problem, as it is clinically manifested by a decrease in the effectiveness of pharmacotherapy and the development of serious adverse reactions to drugs, as well as a significant increase in healthcare costs.

Keywords: polypharmacy, drugs, patient, pharmacotherapy.

According to the World Health Organization, one of the most important social trends is the effectiveness and safety of one drug when used simultaneously or sequentially with another drug.

In the modern world, there is rapid progress in the creation and implementation of a large number of drugs that can, on the one hand, cure and/or improve the patient's condition, and on the other hand, cause serious harm. The desire to improve the effectiveness of treatment, to help the patient get rid of all the specific diseases, inevitably leads to the appointment of a large number of drugs (PM) - polypharmacy. Currently, polypharmacy as a result of iatrogenics is a serious health problem, as it is clinically manifested by a decrease in the effectiveness of pharmacotherapy and the development of serious adverse reactions to drugs, as well as a significant increase in healthcare costs. The reason for prescribing several drugs at the same time is the presence of concomitant diseases (multiple diseases), the availability of drugs, as well as clinical recommendations, guidelines of professional medical societies, treatment standards, and in some cases, more use may include recommendations on More than 5 drugs in complex therapy for only one indication, their effectiveness corresponds to a high level of evidence. Currently, the fight against polypharmacy is one of the important tasks of providing medical care to elderly and elderly patients, because it is the main risk factor for the development of adverse drug reactions in this category of people.

What is polypragmatism? In the medical literature, the term "polypragmasia" is often used, but there is no generally accepted definition. In local literature sources, polypharmacy is defined as prescribing a large number of drugs at the same time, including unreasonably. In foreign literature, the term "polypragmasia" is used (polypragmasia, Greek poly - many and pharmacy - medicine). Other sources have a qualitative definition of polypharmacy - prescribing a patient with more drugs than the clinical situation requires, and a quantitative definition - prescribing 5 or more drugs to a patient [1]. In medical dictionaries, polypharmacy is "the mixing of many drugs in one prescription", "the use of many drugs for the treatment of one or more diseases.

Some authors classify polypharmacy into small (2-4 drug prescriptions at the same time), large (5-9 drug prescriptions at the same time) and excessive (10 or more drug prescriptions at the same time) . Polypragmasia is classified as justified and unjustified. With justified polypharmacy, several drugs are prescribed to achieve the therapeutic goal under constant monitoring of effectiveness and safety. An example of such polypharmacy is combined anti-tuberculosis therapy. In the case of unjustified polypharmacy, drugs of different groups that can interact with drugs and cause serious side effects are used to achieve the goal, control of effects is not carried out, self- more common with self-medication. For example, the simultaneous use of valproate and carbamazepine [4].

Polypharmacy is known to cause drug interactions and contribute to the development of severe adverse drug reactions (ADRs). At the same time, in medical practice, regardless of the patient's characteristics, ADR can occur when one drug is unreasonably prescribed, and drug interactions can

occur when 2 or more drugs are prescribed at the same time. In addition, in some clinical situations, polypharmacy and the interaction of drugs can be clinically useful (intensification of the effect, smoothing of side effects, etc.).

Thus, from the point of view of clinical pharmacology, "polypharmacy" should be defined as unreasonable prescription of a large number of drugs at the same time, because only rational prescription of drugs can increase the effectiveness of treatment and reduce the frequency of ADRs.

According to information in the literature, when using 5 or less drugs, the incidence of NLR does not exceed 5%, and when using 6 or more drugs, it increases sharply - 25% [11]. According to the available data, up to 23% of drug combinations recommended by doctors are potentially dangerous and cause death in 1/3 of cases [12]. However, in most cases, ADRs can be predicted and, accordingly, their development can be avoided. Thus, in 2022, a risk stratification scale for ADRs in hospitalized elderly patients, the GerontoNet scale, was developed and tested, according to which it was determined that polypharmacy affects the spleen and its adjacent organs. A study by G. Onder et al found that polypharmacy was associated with 64% of severe ADRs in the elderly. [13] With an ADR score of 8 points or more, the consequences of polypharmacy develop in 21.7% of cases, and the number of drugs prescribed at the same time is the strongest risk factor for the development of ADR. This study demonstrates good sensitivity and specificity of the GerontoNet scale. Therefore, it can be used as a tool to identify patients at high risk of developing ADRs in order to optimize pharmacotherapy and adjust therapy in time to reduce ADRs [13].

Thus, many pharmacoepidemiological studies have shown that polypharmacy is the main risk factor for the development of ADR. Currently, in order to minimize polypharmacy in clinical practice, methods of analyzing each drug prescription and optimizing pharmacotherapy using "restrictive" lists are used.

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