Benzodiazepine receptor agonists significantly increase the risk of pneumonia

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The results of a new study have shown that popular treatments for anxiety and insomnia have a dangerous side effect.

Note

This article was exposed to the machine translation from Ukrainian.

Background

Benzodiazepine receptor agonists (BRA) is a common term for several drug groups commonly used to treat anxiety disorders and insomnia. It includes benzodiazepines and non-benzodiazepine hypnotics, also known as «Z» drugs.

Benzodiazepines are commonly divided into one’s with predominantly anxiolytic and hypnotic action. These drugs are extremely popular in the past, currently have a relatively limited use in accordance with current guidelines. Thus, according to the National Institute for Health and Care Excellence guidelines, United Kingdom, these drugs should not be used as a first-line therapy for generalized anxiety disorder and panic disorder, even for quick relief from situational anxiety. While earlier it was one of the main indications for their use.

The use of BRA for insomnia treatment is are also limited. As for «Z» drugs - treatment duration should be no more than 3 weeks.

Such a situation is due to three main factors. First, BRA have serious side effects, such as causing physical dependence from a prolonged use. Secondly, their effectiveness is questionable in the long term. Thirdly, there are much safer and more effective alternatives such as cognitive-behavioral therapy or SSRI and SNRI.

Despite this, physicians continue to prescribe BRA, keeping in mind the long history of their use and ignoring the evidence base.

BRA and the risk of pneumonia

Another reason for limiting the use of benzodiazepines was recently provided by a team of scientists from Harvard Medical Institute (Harvard Medical School) and research institutes in Taiwan. Researchers analyzed a Taiwanese national database of patients between 2002 and 2012.

Study had case-control design. According to this design were selected 12,002 cases of hospitalization for pneumonia and picked up 12,002 persons with according gender and age. Were analyzed all data for BRA use, including their dosage and medication class.

In this study we obtained the following results regarding increased risk of pneumonia hospitalization:
Hypnotic benzodiazepines increased the risk by 2.42 times.
Non-benzodiazepine hypnotics increased the risk by 1.6 times.
Benzodiazepine anxiolytics increased the risk by 1.53 times.

The greatest increase in risk were observed in those taking drugs relatively recently (within the past 90 days), which further confirms the identified relationship. Scientists explain this as BRA depressing effect on respiratory function. This effect is most pronounced in hypnotic benzodiazepines and this group was associated with the highest increase in pneumonia risk. Besides this, researchers identified that the drug midazolam was associated with the greatest increase in pneumonia hospitalizations (by 5.77 times).

The researchers hope that clinicians will consider these risks before prescribing BRA to the patients.

References