DRUG & THERAPEUTICS LETTER

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Risks of Taking Sedatives for Insomnia in Older People May Be Greater Than The Benefits

For older people, the risks outweigh the benefits of taking sleeping pills and other sedatives, say researchers.

Insomnia can often affect the quality of life for older people and studies from UK has shown between 5% and 33% of older people in the UK are prescribed sleeping pills such as benzodiazepines.

But in an analysis of 24 studies carried out between 1966 and 2003, researchers found that the adverse results for older people taking sedatives – such as dizziness, loss of balance, falls, and disorientation – were statistically significant enough to make them think non-drug treatments could be a better approach to tackling insomnia.

The 24 studies included 2,417 participants in total and looked at the effects of sedative hypnotics, including over the counter medications such as antihistamines, and prescription only drugs like benzodiazepines. Research only included cases where people who were 60 and above had been taking them for five consecutive nights, compared to people taking placebos.

Effects such as dizziness or loss of balance – psychomotor-type side-effects – were reported in 13 studies (1,016 participants). Seven of the 59 psychomotor effects that were

reported in these studies were serious events – six falls and one car crash.

But the researchers also found there were many potential benefits for people taking sedatives such as improved quality of sleep (more sound uninterrupted sleep), ease of getting to sleep and total sleep time.

On balance however, they argue that although treatment with sedative hypnotics improves aspects of sleep, the risk of adverse effects rises with such treatment. There are also indicators that older patients are more than twice as likely to experience an adverse event as they are to gain a better quality of sleep from such sedatives. But they stress that this comparison is only a rough indicator because more studies contributed information on harmful events than on sleep benefits.

Improvements in sleep with sedative use are statistically significant, but the size of the effect is small, say the authors. 'In people over 60, the benefits of these drugs may not justify the increased risk,' they conclude.

Source:

http://bmj.bmjjournals.com/cgi/rapidpdf/bmj.38623.768588.47

Brief Information:

Public Health Implications of Antibiotic Use for Growth Promotion in Animals

- There is no debate on use of antibiotics for preventive and curative purpose in animals.

- There are several reports of use of antibiotics in sub-therapeutic dose in feed for growth promotion.

- Use of sub-therapeutic dose of antibiotics leads to the development of multi-drug resistant bacteria. These bacteria may acquire resistance to other related antibiotics as well.

- Antibiotic resistant bacteria from animal can be transmitted to human.

- Use of fluoroquinolones (ciprofloxacin, norfloxacin etc.) for prevention of infection and growth promotion has led to the development of fluoroquinolones-resistant bacteria in animals as well as human.

- Sweden in 1987 banned the use of antibiotics for growth promotion in animals as well as poultry. Similarly, Denmark in 1998 placed ban on such use. The trend has been followed by Germany, Netherlands, Belgium and Taiwan.

- There has been no report of decrease in production of meat, deterioration of health of animals or decrease in meat safety as well as no increase in price due to ban on use of antibiotics for growth promotion. Instead, there was decrease in the prevalence of resistant bacteria in animals. This has further resulted in the decrease of human carrier of resistant bacteria.

- Realizing above problems, Mc Donald from 2003 has placed restriction on supply of chicken and meat by firms using antibiotics as a growth promotion.

Statins and Muscle Symptoms

HMG-CoA reductase (Statins) are one of the most efficacious and well tolerated hypolipidemic agents. The august 2005 issue of 'Australian Prescriber' has reported about statin induced myopathy. Though it was supposed to be a rare symptom, muscle symptoms with statins may be more common than health professionals suspect.

According to the report, statin associated muscle symptoms were associated with:

- old age
- recent commencement of a statin
- dose increase of the statin
- drug interactions that elevate the statin level, e.g.co-administration of cytochrome P450 (CYP) 3A4 inhibitors such as amiodarone with statins (metabolised by CYP3A4) such as atorvastatin and simvastatin.
- pre-existing conditions which contribute to an elevated statin plasma concentration e.g. decreased renal function, dehydration, liver dysfunction or hypothyroidism.

Adverse Drug Reaction Advisory Committee (ADRAC) of Australia has developed a checklist to assist practitioners to determine possible statin induced musculo-skeletal adverse effects:

<u>Checklist for statin-induced muscle symptoms</u>

Does the patient experience:

- muscle aches, tenderness, soreness, weakness or pain, usually present in proximal muscles (e.g. trunk)
- bilateral symptoms
- decreased muscle strength (not just feeling tired)
- difficulty in:
  - getting up from a chair
  - holding arms above the head
  - performing usual tasks (generalised difficulty)

Are any of the following concentrations increased ?

- creatine kinase
- erythrocyte sedimentation rate
- C-reactive protein

Drug Monitoring and Toxicology Laboratory

This laboratory under the Department of Clinical Pharmacology is providing services since 1987. It provides qualitative estimation of some drugs and quantitative estimation of phenobarbitone, phenytoin, carbamazepine, paracetamol, salicylate, theophylline and cholinesterase enzyme.

The total number of patients who utilized the service from January to September 2005 was 932. The summary of samples received by the laboratory during last 9 months is as follows:

Drug/Enzyme	Reference range (normal limit)	Total samples	Results within normal limit	Results beyond normal limit
Carbamazepine	04 – 12 µg/ml	403	329	74
Phenytoin	10 – 20 µg/ml	230	112	118
Phenobarbitone	15 – 40 µg/ml	36	18	18
Paracetamol	10 – 20 µg/ml	36	4	32
Cholinesterase	3500-8500 U/l	227	51	176

"Drug and Therapeutics Letter" is also available now in the following websites : http://www.teachinghospital.org.np/diu.html, http://www.iom.edu.np/diu.html

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