Alcohol and other drug use in later life

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This is the seventh article in a series of case files from general practice that explore treatment issues around substance use and commonly encountered general practice presentations.

BACKGROUND

Problem alcohol and other drug use is rarely suspected in the elderly. However, the elderly are more susceptible to problems related to drug use at lower doses because of age related changes, comorbidities and polypharmacy. Like other age groups, the elderly sometime seek the use of alcohol and other drugs to help them feel better or to avoid negative feelings such as loneliness and depression. Drug use in the elderly is associated with significant morbidity and can be masked by other medical problems.

OBJECTIVE

This article demonstrates a gradual onset alcohol problem in a longstanding elderly patient, in whom changes in drug or alcohol use may not be easily detected. It also highlights some key differences in drug related presentations in the elderly.

DISCUSSION

Some health professionals consider intervention for problem alcohol or other drug use in the elderly ineffective. However, because of the high prevalence of polypharmacy and comorbid pathology, intervention is more likely to result in a significant health improvement. General practitioners have a high level of contact with and are trusted by the elderly, giving them an unparalleled opportunity among health professionals to intervene in problem alcohol and other drug use.

Case history – Vera

Vera, 73 years of age, has been a patient at the practice since its establishment 40 years ago when the suburb you work in was considered to be on the outskirts of the city. When you joined the practice 8 years ago Vera was one of your first patients.

Vera's clinical history when you met her included hypertension, osteoarthritis, a history of a hiatus hernia repair and a hysterectomy for menorrhagia. She also had a family history of stomach and bowel cancer, had never smoked and only rarely consumed alcohol. She had been taking ranitidine, metoprolol and temazepam for many years.

Over the years you discovered and managed impaired glucose tolerance, hyperlipidaemia and reflux oesophagitis. Vera rarely speaks about her husband who has never come to the practice, but when she does, she makes it clear that they share very little in common. Although co-habiting, they have lived separate lives for the best part of 30 years. You know from previous home visits that they sleep in separate bedrooms and Vera seems to consider his presence a nuisance that she has to bear. While Vera has not directly revealed the reasons for their discord she has hinted at him having an affair shortly after the birth of their youngest child.

A significant life event

Vera presents one day, distressed because her only sibling Veronica has died of bowel cancer. As her older sister, Vera had felt close to and protective toward Veronica. Her death had come shortly after that of Margaret, another patient of yours and a good friend of Vera's. Margaret had separated from her husband many years before and the two women had for several years shared a close friendship – socialising, cooking and shopping together. Collectively the deaths of Margaret and Veronica have had a significant emotional impact on Vera.

Vera is not sleeping well, despite already taking nightly temazepam, something which you have previously been unable to persuade her to stop or reduce. You discuss normal grief reactions and simple sleep hygiene techniques to improve sleep (*Table 1*). However, Vera returns a week later saying that she feels particularly anxious and sad at night, and has increased her temazepam to two tablets to cope with her distress.

You ask about supports in her life and discover that each of her three children have migrated to different parts of the world. Vera once again seems reluctant to respond to your gentle probing about her husband. However, she discloses that her children appear to be closer to her husband and this causes her great pain. She denies problems with her concentration, guilt, changes in her energy level or suicidal thoughts.

You communicate to Vera that while you understand her distress, benzodiazepines such as temazepam only work in the short term. Explaining that within a few weeks the two temazepam tablets per day will lose the extra effect and she will need to take more to retain that same effect, you encourage Vera to drop back to one tablet of temazepam per day and to return to see you in a week.

Vera continues to see you every 2 weeks as her supply of temazepam runs out – indicating continued consumption of two temazepam tablets per day. She seems unable to reduce her use and while you do not approve of her current level of use, you want to be supportive through what is obviously a difficult time.

Table 1. Sleep hygiene tips

Establish a routine

- Set a routine for going to sleep and waking up, avoid day time naps
- Exercise in the day, not too late in the evening
- Restrict fluids in the evening

Associate sleep with bed only

- Avoid reading, eating, watching TV and other activities in bed (unless personal experience is that these promote sleep)
- Associate bed with sleep and sex only
- If unable to sleep, get up and do something else until a 'wave' of sleepiness comes along

Anxiety management

- Bed is not a place for worrying. Write worries down if helpful, but return to bed and leave worrying for later
- Learn simple relaxation exercises such as progressive muscular relaxation

Increasing signs

Four months after her sister's death, Vera returns for a repeat prescription and you note that her blood pressure has risen a little. She is having more trouble with her symptoms of reflux oesophagitis, despite being previously well controlled on proton pump inhibitors. It is time for a repeat of her blood glucose and lipid tests, as well as liver function tests as she is on simvastatin. The results show that Vera's liver function tests are abnormal with a significantly raised gamma glutamyl transferase (GGT) which was not present a year ago.

You wonder about Vera's use of alcohol and although total alcohol consumption is lower in the elderly,[1] excess alcohol use is often undetected.[2,3] An index of suspicion about alcohol is difficult to maintain when seeing patients over a long period of time. Vera is always well dressed and pleasant, and you have never had any reason to consider excess alcohol use. At the next appointment with Vera you discuss her persistently raised blood pressure and the increased GGT.

You note that you have not enquired about her alcohol intake for many years and ask Vera how much alcohol she consumes. She tells you that she drinks port now and then. You follow with: 'Did this increase after Margaret and Veronica died?', to which she nods. Asking Vera specific questions about when and how much, reveals that she is drinking about three standard drinks at night before going to bed. Vera tells you that she has been drinking an occasional glass of port at night for many years but this has increased so that in the past 3–4 months she has not gone to sleep without any alcohol. She denies drinking in the day time.

Vera tells you she tried to go without alcohol one night and found that she felt shaky in the morning and needed temazepam to calm her down. You realise that these symptoms suggest she has developed some physical dependence – tolerance and withdrawal associated with alcohol. This may mean that Vera is drinking more than she has admitted. However, you also recognise that the elderly are often more sensitive to the effects of alcohol (*Table 2*) and she may in fact be getting some symptoms of withdrawal at lower levels of intake.

You enquire about other symptoms commonly related to impairment associated with the use of alcohol (*Table 3*) and Vera admits to having noticed more bruising on her legs than before and having had a fall one night. You check again for symptoms of depression, this time using the Geriatric Depression Scale (GDS) (*Table 4*) which scores Vera positive for depression.

You discuss how her symptoms relate to depression in the elderly. Exploratory questions about how alcohol helps her reveal that Vera uses alcohol to help her sleep, reduce anxiety, and to escape from her unhappiness about her relationship with her husband and children, as well as her loneliness. You explain to Vera that alcohol and depression are related in that

Table 2. The effects of drugs with aging[2]

Pharmacodynamic changes

- Reduction in gastric alcohol dehydrogenase resulting in higher blood alcohol levels for the same amount consumed
- Increase in body fat prolongs half lives for fat soluble drugs such as benzodiazepines, resulting in a higher plasma concentration of the drug
- Decrease in lean body mass causes smaller volume of distribution for water soluble drugs such as alcohol, resulting in a higher plasma concentration of that drug
- Renal impairment is common and can slow the removal of the drug. Hepatic function may also change with various problems but this is not necessarily associated with age

Comorbid conditions

- Acute events related to smoking and alcohol (eg. cerebrovascular events and myocardial infarctions, falls) are frequently key events that result in loss of independent living
- Age related loss of mobility, bone density loss and nutritional deficiencies exacerbate the effect of alcohol
- Increased vulnerability to other illnesses complicate the clinical picture and management

Polypharmacy

- Increased likelihood of polypharmacy which is likely to interact with alcohol and other sedative drugs, so that the negative effects of each drug may be experienced at lower levels
- The elderly are more susceptible to complications in drug withdrawal

Table 3. Specific areas of impairment to consider in the assessment of alcohol use in the elderly[2]

- Falls or accidents
- Nutritional adequacy
- Family problems and social isolation
- Medical problems
  - hepatic (eg. bruising, jaundice)
  - gastrointestinal (eg. gastro-oesophageal reflux)
  - cardiovascular (eg. hypertension, cardiomyopathy)
  - mental health (eg. depression, anxiety, insomnia, reduced cognitive function)
  - metabolic (eg. unstable diabetes, hyperuricaemia)
- Ability to attend to activities of daily living
- Fitness to drive a car
- Medication issues

alcohol can cause depression and people who are depressed can sometimes turn to alcohol, therefore causing a cycle of increasing depression. You ask Vera if she and her husband have ever considered counselling to which she replies that they have been down that track and he would never agree to it again. You then ask if she has ever considered counselling for herself, to which she shakes her head.

Managing alcohol use

You ask Vera if she is willing to look at reducing her alcohol use. She nods, saying that she always felt guilty as the last thing she wanted was to turn out to be an 'alcoholic' with liver problems like her father. You discuss the use of antidepressants with her, and she is willing to try these on your recommendation.

Table 4. 15 Point Geriatric Depression Scale[4]

Choose the best answer for how you have felt over the past week:

• Are you basically satisfied with your life?	(No)
• Have you dropped many of your activities and interests?	(Yes)
• Do you feel that your life is empty?	(Yes)
• Do you often get bored?	(Yes)
• Are you in good spirits most of the time?	(No)
• Are you afraid that something bad is going to happen to you?	(Yes)
• Do you feel happy most of the time?	(No)
• Do you often feel helpless?	(Yes)
• Do you prefer to stay at home, rather than going out and doing new things?	(Yes)
• Do you feel you have more problems with memory than most?	(Yes)
• Do you think it is wonderful to be alive now?	(No)
• Do you feel pretty worthless the way you are now?	(Yes)
• Do you feel full of energy?	(No)
• Do you feel that your situation is hopeless?	(Yes)
• Do you think that most people are better off than you are?	(Yes)

Answers are yes/no. Responses in brackets score 1 point. Scores >5 indicate possible depression. Depression is almost always present when score is >10 (see *Resources*).

Table 5. Alcohol withdrawal syndrome

Timeframe	**Usually occurs 6–24 hours after last drink**
Common symptoms in withdrawal (autonomic hyperactivity)	**Cardiovascular** • tachycardia, hypertension **Gastrointestinal** • nausea, vomiting, diarrhoea **Central nervous system** • anxiety, agitation, tremor, insomnia, transient visual/tactile hallucinations **Other autonomic** • hyperthermia, sweating
Complications	**Delirium tremens** • usually 48–72 hours after last drink (can occur up to 7 days later) • serious complication with significant mortality • hyperactivity, confusion, clouded consciousness, exaggeration of autonomic hyperactivity **Wernicke encephalopathy** • life threatening complication due to thiamine deficiency • confusion, nystagmus, peripheral neuropathy and ataxia
Management	**Environment** • calm supportive environment • attention to nutrition and consideration of thiamine supplement **Assessment** • assessment risk of severe withdrawal based on history and concurrent medical problems • monitoring of withdrawal symptoms **Treatment** • according to risk and symptoms, sedation (diazepam) to reduce withdrawal symptoms (see *Resources*) • provision of information and support **Relapse prevention** • plan for longer term including multidisciplinary support • consider relapse prevention pharmacotherapy (eg. naltrexone, acamprosate)

You arrange a brief admission at a local public hospital for Vera to observe for, and treat any withdrawal symptoms (*Table 5*). While in hospital, you use short term diazepam to facilitate withdrawal but continue temazepam after release. You plan to discuss temazepam reduction again in the longer term, but recognise that attempting to withdraw from both alcohol and temazepam may be difficult for Vera in the short term. You arrange for the social worker from the local aged care assessment team to meet with Vera in hospital and discuss options for counselling support in her area. Older people with alcohol related problems are more likely to lack social support and satisfying leisure activities and these are important issues to deal with in their management.[2,3]

Following her detoxification from alcohol, Vera's blood pressure settles. The social worker has arranged for her to see a counsellor weekly and she has joined the local bowling club. Elderly patients tend to respond to interventions that are slower paced, non-confrontational, and which deal with loneliness by building social networks.[2,3] In view of the potential benefits of benzodiazepine cessation, you continue to encourage good sleep hygiene habits, activity and relaxation balance; skills which will help Vera when she is ready to reduce her temazepam use. As her GP, you continue to see Vera regularly, encouraging a healthy lifestyle, and providing general health care and support as part of ongoing care.

Conclusion

Drug and alcohol use in the elderly is easily missed by family members and health professionals. However, the higher level of polypharmacy and comorbidity mean that intervention impacts positively on outcome. The challenge for the GP is to identify the problem, support the patient, and manage the issues which result from drug and alcohol use in this group of patients.

Resources

- 15 Point Geriatric Depression Scale – for further information and language versions: www.stanford.edu/~yesavage/GDS.html.
- Treating alcohol problems: guidelines for general practitioners. National Alcohol Strategy. Australian Government Department of Health and Ageing, 2004. Available at: www.health.gov.au/ pubhlth/publicat/document/alc_treatinggp.pdf.

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