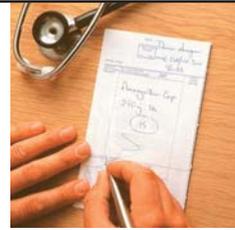




When the child with ADHD grows up



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

BACKGROUND

There is significant controversy surrounding attention deficit hyperactivity disorder (ADHD). While the existence of this disorder is generally accepted, debate continues in relation to aspects of assessment, as well as the effectiveness and choice of treatment options and their continuation into adult life. Management is further complicated as people with ADHD often have chaotic lives which impedes medication compliance and motivation to continue treatment vacillates. Concern also exists over the misuse of amphetamine-like medications by some patients.

OBJECTIVE

This case study does not provide comprehensive information on current diagnosis and ADHD treatment guidelines, but explores the issues and management role of general practitioners treating patients with ADHD.

DISCUSSION

The diagnosis of ADHD is common, and many patients are managed using a range of social and behavioural interventions that are commonly combined with pharmacotherapies (provided in the main by psychiatrists and paediatricians). However, while specialists may appropriately choose not to treat where a diagnosis is unclear, or discontinue treatment for reasons such as doubtful response to treatment, possible medication misuse, concurrent illicit drug use or poor motivation, GPs frequently continue to manage ongoing care and the impact of ADHD on the rest of the family. When the specialist formulation suggests there is little to gain from further treatment, the GP is likely to be the sole health professional remaining engaged in support and ongoing management.

Case history – Sean

Sean, 19 years of age, is a young man who lives with his mother Christine, a social worker who separated from her husband when Sean was 2 years old. Christine has been a patient of your practice for the past 2 years. At a routine appointment to renew her medication for hypertension, she raises the possibility of Sean seeing you. At the age of 7 years, Sean was diagnosed by a psychiatrist as having childhood ADHD after having difficulties throughout preschool and early school years. At the time, Christine read all she could about ADHD and visited various psychologists in an attempt to find behavioural solutions. Eventually another psychiatrist treated Sean with dexamphetamines and later methylphenidate.¹ He appeared to do well until he started to 'lose' his medications 3 years ago and his treatment was stopped. At this stage he dropped out of school and has not since found employment. He struggles to engage in

social activities because of his inability to concentrate.

Christine says that she and Sean communicate well and she is aware of ongoing alcohol and cannabis use, which Sean considers 'hard to stop'. She has an arrangement with Sean based on harm reduction, ie. Sean knows she does not approve of his drug use but prefers him to smoke cannabis at home where he is 'safe' from legal problems. Similarly, she prefers him to limit his drinking outside the home and buys beer for him to have at home (1-2 standard drinks per night). She says that Sean believes that if he can get back on medication he will be able to find employment.

Christine understands you will not be able to discuss her son's case details with her, but would like you to see him. You explain that you cannot prescribe ADHD medications but are willing to see Sean with the view to referral if appropriate.

What is achievable at this appointment?

Sean presents alone at an appointment organised by his mother. You begin by acknowledging awareness of his mother's role in arranging the appointment and emphasise your commitment to confidentiality.

Information provided by Sean is consistent with that provided by his mother. He struggled in all areas of schooling, had few friends, and left school at 16 years of age to work in a fast food chain restaurant. He encountered difficulty getting organised for work, was often late, and would forget instructions given by his supervisor – all features of ADHD² (Table 1). At the end of 2 months, he simply stopped attending work.

Since then he has sought work without success. Sean seems quite gentle and likeable but awkward and uneasy with himself, appearing much more immature than his 19 years.

Sean admits to smoking two packets of cigarettes a week, 1-2 'joints' of cannabis about twice per week, and 1-2 cans of beer every night, with an additional 3-4 cans when he goes out. He also occasionally takes some 'speed' pills. He denies insomnia or feelings of depression or anxiety but says he frequently feels bored and drug use provides some relief and enjoyment. He expresses a desire to find employment and have direction in his life, but feels 'stuck in a hole'. When on methylphenidate Sean felt he concentrated more and completed tasks more often.

When you ask why his treatment was previously stopped, he says that he repeatedly ran out of his medications and the psychiatrist refused to prescribe anymore. Sean is initially reluctant to disclose why he ran out of his medications. Your enquiry as to whether he sold them is met by a prompt denial, however, he does concede that he sometimes gave them to other people. Finally he states: 'Mostly, I just used them up early when I was bored'.

The diagnosis of ADHD is complex and requires information about past treatment from multiple sources. You tell Sean that you wish to help him and need permission to obtain information from previous doctors. Sean agrees to this, and to return in 2 weeks.

The story unfolds

The psychiatrist who originally diagnosed and treated Sean is now retired, but you are successful in contacting the subsequent psychiatrist who tells you that when he took over his care, Sean was aged 13 years, with predominantly inattention ADHD observable

at home and at school. You note that the presence of these features in multiple settings is important in the diagnosis of ADHD.^{2,4} The other two principal characteristic features of ADHD^{2,3,5} – hyperactivity and impulsivity – were not prominent. This means that Sean is in a subgroup of ADHD that may be significantly different from the majority of those diagnosed with ADHD.⁴

Dexamphetamines were first used with some reported improvements at school and at home. However, Sean had a much better response when he was changed to methylphenidate. Later, Sean started 'losing' medications, and urine tests showed cannabis use. The psychiatrist decided to stop treatment as the benefits were becoming questionable.

You explore whether a lack of therapeutic response or concern about abuse or diversion of medication was the major concern and discover that both were relevant. You inform him that both Sean and his mother believe there was benefit from treatment and ask if he would be willing to consider prescribing again within a tighter structure to reduce the likelihood of medication 'loss'. You explain that you could work with the pharmacist to ensure that limited supplies are dispensed. The psychiatrist agrees to reassess Sean.

You raise a concern that Sean's mother had voiced. While convinced of a benefit from previous stimulant based medication use, she remains fearful that medication will make Sean feel 'high', and lead to abuse, particularly given his recent foray into cannabis use. The psychiatrist advises you to reassure Sean's mother that there is no empirical evidence that stimulant medications (when used as directed for the treatment of ADHD) cause drug abuse or dependence.^{3,6} A review of long term studies on stimulant medication and substance abuse found that teenagers with ADHD who remained on their medication during their teen years had a lower likelihood of substance use or abuse than did ADHD adolescents who were not taking medications.⁷

The next appointment

On Sean's return you inform him of your discussion with the psychiatrist and his agreement to reassess Sean. You explain the psychiatrist is likely to want to seek his mother's opinion on the effect of previous medication.

You convey the concerns raised about the concurrent use of ADHD medication and other drugs – in Sean's case, cannabis and illicit 'speed' – as this is associated with poorer outcomes.⁹ You discuss the likelihood of cessation of medication if other illicit drugs are found in his urine. Sean nods and says that if he were on medication again he could stop other drug use.

You propose a role for another person to supervise medication use in addition to limited and more frequent dispensing. Sean suggests his mother. You agree to this and state that it will allay previous concerns of 'lost' medication. You reinforce your confidentiality agreement – that you will speak to his mother about him in his presence only; but explain that his mother will be expected to report medication problems. Sean consents to this.

Preparing for a psychiatric review

You arrange the referral, reminding the psychiatrist that if he advises recommencement of treatment, you will arrange limited dispensing and add that Sean has agreed to supervision of medication by his mother. You offer to facilitate assessment by initiating a urine drug screening.

Sean consents to a urine drug screen but he tells you he smoked a 'joint' the week before testing. As cannabis can remain in the urine for several days – and with heavy use for weeks – you suggest a supervised urine test a week later. Urine tests are often considered to adversely impact on a therapeutic relationship since their use implies a mistrust of the patient. However, in Sean's

Table 1. Features of ADHD (from DSM-IV)²

Characteristic Features

Inattention

- often fails to give close attention to details or makes careless mistakes in school work, work or other activities
- often has difficulty sustaining attention in tasks or play activities
- often does not seem to listen when spoken to directly
- often does not follow through on instructions and fails to finish school work, chores, or duties in the workplace
- often has difficulty organising tasks and activities
- often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as school work or home work)
- often loses things necessary for tasks or activities (eg. toys, school assignments, pencils, books or tools)
- is often easily distracted by extraneous stimuli
- is often forgetful in daily activities

Hyperactivity

- often fidgets with hands or feet or squirms in seat
- often leaves seat in classroom or in other situations in which remaining seated is expected
- often runs about or climbs excessively in inappropriate situations (in adolescents or adults, may be limited to subjective feelings of restlessness)
- often has difficulty playing or engaging in leisure activities quietly
- is often 'on the go' or often acts as if 'driven by a motor'
- often talks excessively

Impulsivity

- often blurts out answers before questions have been completed
- often has difficulty awaiting their turn
- often interrupts or intrudes on others (eg. 'butts into' conversations or games)

case you know that a drug free urine screen can help Sean re-access treatment. You reinforce Sean's objective of gaining employment and use this as a means to provide motivation to cease other drug use.

The urine test reveals amphetamine substances and you present this to Sean who appears genuinely surprised. You ask about over-the-counter medications and discover some recent medication for a cold. You assume the result is from cross reactivity with pseudoephedrine and find out that further testing can differentiate between the two.⁹ However, following discussion with Sean you elect to repeat the test a week later which is negative.

Coordinating a plan

After seeing Sean, the psychiatrist informs you he considers a second trial of methylphenidate to be worthwhile. You arrange weekly dispensing by a pharmacist, negotiate daily medication supervision, and discuss the care plan for Sean outlining your respective roles. As Sean's general practitioner you set up the following structure:

- regular review at which you check on medication response
- provision of support and encouragement to both Sean and his mother
- assessment of his general health, routine preventive medicine and encouragement

of a healthy lifestyle

- documentation of his behaviour and any level of intoxication
- instruction not to use any over-the-counter medications without consulting you, and
- coordination of care with at least monthly contact with the pharmacist and regular review by his psychiatrist.

This structure works well and Sean remains on medication for 1 year and starts a course in mechanics before he loses interest in both the course and the treatment. Cannabis use becomes evident from his urine screens for 1 month before he stops seeing you and the psychiatrist.

You do however, see his mother regularly. She appears resigned to Sean continuing to live life 'aimlessly' with music, alcohol and cannabis, albeit what she considers to be manageable levels. She believes Sean made the choice of returning to cannabis, knowing that this was incompatible with continued methylphenidate treatment.

Conclusion

You see Sean for a minor injury a year later and he appears quite content, although he still complains of boredom and a lack of direction but doesn't appear to be ready to change. During the consultation, Sean seems to change his mind and asks for a referral to another psychiatrist stating he did not feel comfortable with the previous one. Sean does not follow through with the referral.

Eight months later, Sean returns with a newspaper clipping of the new drug atomoxetine, a selective noradrenaline reuptake inhibitor.¹⁰ Sean has started helping his cousin in the building trade and would like to try 'something that isn't addictive' for ADHD. You are aware that this drug has recently been released in Australia and trials have indicated its appropriateness for treatment in children and adults. You explain to Sean that you will find more information on this new drug which is now one of a range of pharmacotherapies used to treat ADHD and to help him access treatment again.^{3,10}

While a specialist might measure success by the satisfactory resolution of a patient's ADHD symptoms, success for the GP may be measured by the ability to establish and maintain contact over several years with the provision of support and management to both the ADHD sufferer and their family. This may involve preliminary information about ADHD, pharmacotherapies and other management strategies, referral, liaison with the treating specialist, development of a specialist-GP shared care arrangement, and harm minimisation during periods of lapsed treatment. While the specialist's role may formally cease at the termination of specific treatment, the role of the GP continues within and outside the boundaries of formalised treatment.

Conflict of interest: none declared.

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