ADHD – early referral and diagnosis vital

Aileen Murtagh looks at attention deficit hyperactivity disorder and reviews the condition’s treatment and outcome

CHILDREN WITH BEHAVIOURAL PROBLEMS account for a substantial number of GP referrals to child and adolescent mental health services. Many of these children will receive a diagnosis of attention deficit hyperactivity disorder (ADHD). Both the disorder and its treatment have been the focus of a great deal of media publicity. This article will cover presenting features, differential diagnosis, comorbid conditions, treatment and outcome.

Clinical features
The ‘core’ features of ADHD are inattention, hyperactivity and impulsivity. Some children present with predominantly inattentive symptoms. These children change from one task or toy to another, leaving the task unfinished. They are easily distracted, appear not to listen and have poor concentration. Other children have mainly hyperactive-impulsive symptoms. They are fidgety, restless, active, excessively talkative and noisy, speak out-of-turn, break rules without thinking, and may engage in dangerous activities. These symptoms may not be evident in novel unstructured settings such as the GP surgery. They are often most obvious in structured settings where a high degree of control is required, eg, the classroom. Children with the combined subtype present with all three core features.

For a diagnosis to be made, symptoms should be present before six years of age, persist over time and should be excessive for the child’s IQ and age. Young children or children with a low IQ may be overactive and have attention difficulties, which may be appropriate in the context of their age or IQ. Therefore, the child’s symptoms need to be assessed in the context of their developmental and cognitive level.

NICE guidelines recommend that a diagnosis of ADHD should be made by a child and adolescent psychiatrist or paediatrician with expertise in the area. A comprehensive
assessment should be carried out, which often involves the multidisciplinary team.

Other associated features include recklessness, social disinhibition, low self-esteem, cognitive impairment, reading difficulties, academic problems and delays in motor and language development. These children may be unpopular with peers because of their symptoms, which can lead to social isolation or bullying.

**Differential diagnosis**

ADHD needs to be distinguished from normal childhood behaviour. The line between normality and hyperactivity can be difficult to assess, especially in preschool children. If inattentive and/or hyperactive symptoms are persistent, developmentally inappropriate, and are causing impairment in functioning in different settings, the diagnosis should be considered. Other diagnoses to rule out include oppositional defiant disorder, conduct disorder, mood disorders, anxiety, early-onset psychosis, tics, autistic spectrum disorders, learning disability, attachment disorder, substance misuse and organic disorders.

**Epidemiology**

ADHD is estimated to affect between 1% and 5% of school-aged children. The male to female ratio is 3:1. However, in clinics, an even greater number of boys are seen with the ratio increasing to 9:1, which may be due to referral bias. Boys tend to present earlier with externalising symptoms. Parents and teachers often struggle to control boys with hyperactive-impulsive symptoms, and seek help at an early stage. These children are often referred in junior infants, as they cannot adhere to the structured environment required in school. However, girls with predominantly inattentive symptoms may not present as they are not displaying ‘problem behaviours’. It is not until they are struggling academically that a referral is sought.

ADHD is more common where there is social deprivation, unemployment, emotional problems, relationship difficulties, academic problems and delays in motor and language development. These children may be unpopular with peers because of their symptoms, which can lead to social isolation or bullying.

**Comorbidity**

Comorbidity occurs in up to 80% of children with ADHD. Associated disorders include:

- Oppositional defiant disorder
- Conduct disorder
- Depression
- Bipolar affective disorder
- Substance misuse
- Specific learning difficulty
- Developmental disorder
- Anxiety disorder.

**Treatment**

Interventions for children with ADHD involve a combination of social, psychological, behavioural and pharmacological therapies. Stimulant drugs (methylphenidate or dexamphetamine) are used first-line if medication is deemed necessary. They are effective in up to 90% of cases. Dexamphetamine has a higher overall incidence of side-effects. Methylphenidate is more commonly prescribed. It is licensed in children six years or older, as part of a comprehensive treatment programme. It should be initiated by a specialist with expertise in ADHD.

A baseline physical examination is needed. Baseline blood tests (FBC, U+E, LFT, TFT) are sometimes requested. Short and long-acting preparations of methylphenidate are available. Short-acting drugs last two to four hours and are dispensed twice or three times daily. Hence, adherence can be problematic. Once-daily long-acting formulations, which last 12 hours, are preferred by many families. Last year, the FDA in the US approved the first transdermal methylphenidate patch for treating ADHD.

Many children experience transient abdominal pain or headaches on commencing methylphenidate. Reduced appetite is common. Weight, height, blood pressure and pulse need to be monitored at baseline and at regular intervals while on stimulants. ‘Drug holidays’ on the weekend or during school holidays may reduce the risk of mild growth suppression. Some children attend the Ritalin clinic in their local child and adolescent mental health service, but visit their GP for repeat prescriptions once stabilised on medication, under shared care arrangements.

Atomoxetine is a new non-stimulant drug, which can be used as a second-line approach under specialist supervision. Since its release, there have been case reports of suicidality, aggression and liver damage. Monitoring of liver function is advisable. Third-line options include cautious specialist use of clonidine, selective serotonin reuptake inhibitors or tricyclic antidepressants.

Behavioural interventions are often used in conjunction with medication. Ideally, individual work with the child should be carried out in the home and at school.

Parents often ask for assistance in managing their child’s behaviour. They may be offered a place in a parenting group, or work as a couple with a team member.

Psycho-education is important, as ADHD is often poorly understood. Social skills training may be indicated and can be carried out with the child individually, or in a group setting. Children often need treatment by a speech and language or occupational therapist due to comorbid problems. Contact details for organisations, such as the HADD Family Support Group, (Carmichael Centre, North Brunswick Street, Dublin 7, Tel: 01 874 8349) should be given. Educational assistance may be required, eg. a special needs assistant and/or resource teaching.

**Outcome**

In adolescence, the hyperactive symptoms often subside. However, inattentiveness and impulsiveness can persist and lead to academic underachievement. A considerable number continue to have problems in adulthood, such as unemployment, emotional problems, relationship difficulties or substance misuse.

**Conclusion**

Many parents approach their GP because of concerns over their child’s behaviour. Children who display possible symptoms of ADHD should be referred to their local child and adolescent mental health service or specialist paediatrician for comprehensive assessment and diagnosis.

Under shared care arrangements, GPs have a role in monitoring children who have been stabilised on medication. ADHD is a chronic condition. Untreated, it can lead to social problems, academic difficulties and poor self-esteem. Early referral and diagnosis is important.

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