

A Paediatric Overview of Children Seen in the ENT Outpatient Department

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Core Messages

- Special techniques are needed for a successful paediatric consultation.
- It is important for the clinician to be aware of the normal stages of a child's development, in order to identify delay in an individual child. In the field of paediatric ENT, this particularly applies to delays in speech and language.
- One child in five will have special needs, either minor or major, at some time during childhood.
- The paediatric ENT doctor needs to be aware of disorders such as autism, global delay, specific learning difficulty, Down and other syndromes, behavioural, social and cultural difficulties and the possibility of abuse.
- Liaison with other agencies is an integral part of the management of the child in an ENT clinic.

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Introduction: Paediatric Consultation

Children are not small adults and their developmental status and metabolic needs must be considered carefully by those entrusted with their medical care. In a paediatric consultation, the history (anamnesis) is especially important, as it is essential to have a clear idea of the nature of the problem before examining the child. This is because children are often reluctant to be examined by strangers.

1. After discussing the reason for the referral with parents or carers, go over the child's developmental history and especially their communicative abilities.
2. Enquire about the family history, especially first-degree relatives: siblings and parents.
3. Observe how the child interacts with others and uses play materials.
4. Look for dysmorphic features, also physical signs, such as mouth breathing and dribbling.

5. Try to engage children in simple play by following their lead in the choice of play materials.
6. Only examine the children physically once you have gained their confidence, and leave possibly stressful things, such as tympanoscopy, till last.
7. Do not forget to ask older children about their own concerns.
8. At the end of the consultation explain what you feel the problem is and how you plan to proceed. Ask the accompanying adults or older children if they have any questions.

Development in the First Five Years of Life

In assessing a child's development, it is usual to look at gross and fine motor development, speech and language development, including social interaction, and visual and hearing capabilities. Older children are able to have a more formal assessment of their cognitive abilities, both verbal and non-verbal.

In terms of infant development, huge gains are made in terms of visual skills in the first few months. A key stage is the development of reciprocal social interaction at about 6 weeks of age. Not only do babies smile back at their caregivers at this stage and vocalise, they have begun to read facial expressions and will look distressed if people frown at them. Parents of children later diagnosed with autism often notice the lack of these early socialisation skills, especially if they have other children who are not autistic.

Motor development is a very obvious developmental parameter, and by the age of 7 months, children are sitting securely and able to transfer objects from one hand to another. Soon afterwards, they begin to crawl, although it is worth remembering that 10% of children are bottom shufflers, who may not walk till around 2 years of age, especially if they are lax jointed. In this situation there is often a family history of bottom shuffling. Most children are walking by 18 months, but it is worth emphasising that most children who walk later than this will have no long-term difficulties. On the other hand, children with global delay often have slow motor development as part of the picture. However, they may not and it is essential to look at the whole child, and especially at how he or she attempts to communicate (Hall et al. 1999).

Children with Special Needs

One child in five has special needs at some point in childhood. These range from major health and developmental problems to temporary and more minor ones, and include medical conditions such as epilepsy and diabetes mellitus, speech and language difficulties, conductive deafness ("glue ear"), visual acuity problems that require spectacle prescription, and mental health problems.

Speech and Language Delay or Disorder

Speech and language difficulties are very common, with children in the lowest 10th centile being more than 1 year behind the average with their expressive language, although their comprehension is age appropriate. If 100 children with the same birthday are considered, 10 of them will fall on or below the 10th centile in terms of speech and language development. These children do catch up, but even a temporary hearing impairment may slow down their development further. If children also have a delay in the understanding of language, the difficulties are greater and if they have both a receptive and expressive delay greater than 1 year, they have a speech and language disorder. About 0.5–1% of children have a language disorder.

Before they begin to talk, children develop their pre-verbal skills. For example, if you give a cup, especially a familiar one, to an 8-month-old child, he or she will look inside it. By 18 months definition by use has progressed so that when shown simple items, such as a cup, spoon, brush, ball or doll, a child should be able to play appropriately with them all, showing an understanding of what they are for. Many children at this age will hand over the items on request, even if they cannot name them, thus showing that they are beginning to understand verbal labels.

As a rule of thumb, by the age of 2 years, children will have a single word vocabulary of about 200 words and by then are beginning to link two words together. At 3 years, simple three-word sentences with subject, object and verb are achieved. For more details of developmental milestones in speech and language see Chapter 5.

Autistic Spectrum

As mentioned above, children on the autistic spectrum have difficulties with social communication. As a consequence, most have delayed speech and language development, although children with Asperger's syndrome, who often present later, in the early school years, may speak at the normal time but have difficulties with the use (pragmatics) and meaning (semantics) of words, as well as more subtle difficulties with social interaction. Because the more severely affected children appear to live "in a world of their own", a hearing loss is often suspected. Because they do not enjoy turn taking with another person, it is difficult to test an autistic child using behavioural testing, such as play audiometry.

The introduction of newborn hearing screening programmes means that these children have usually been shown to have the potential for normal hearing and there is less need to resort to auditory brainstem response testing. Of course, they may suffer from glue ear and conductive hearing difficulties, so a history of mouth breathing and snoring needs to be taken seriously. All children with developmental social and communication difficulties are

at risk of incurring further delay in their development if they suffer from conductive hearing loss (see Table 5.2 for warning signs that assist in the differential diagnosis of communication disorders).

Global Delay

As with children with social and communication difficulties, children with global delay are disadvantaged by hearing loss. The causes of generalised delay include some syndromes (see below and Chapter 8), but in about one-third of children it is still not possible to find a cause.

Specific Learning Difficulties

Specific learning difficulties are common and can lead to educational failure if they are not recognised. Problems may occur with reading and spelling (often called dyslexia) and with coordination and fine motor difficulties (developmental coordination disorder or dyspraxia).

Syndromes

A syndrome is defined as a group of symptoms that collectively indicate or characterise a disease, a psychological disorder or other abnormal condition. There are many paediatric syndromes, several of which are associated with deafness (see Chapter 8). Many syndromes are associated with learning difficulties and because of this, conductive deafness, which affects as many as one in five under fives at some time, needs to be treated if it occurs.

Down Syndrome

Down syndrome, or trisomy 21, is the commonest syndrome encountered in paediatrics and affected individuals have a 30% risk of “glue ear” and a 30% risk of later sensorineural deafness. Regular hearing assessment is needed, and many children benefit from temporary hearing aids if the conductive deafness persists. Children with trisomy 21 have other physical difficulties. They are often very floppy at birth and may have abnormalities of the cardiovascular and digestive systems. For this reason they benefit from a multidisciplinary approach (see below under The Child Development Team).

Behaviour Difficulties

Child mental health problems are common and some, such as attention deficit hyperactivity disorder (ADHD), affect a child’s educational progress, especially if specific learning difficulties are also present.

Attention Deficit Hyperactivity Disorder

Conservative estimates suggest that between 1 and 5% of children, mostly males, are affected by ADHD. The behavioural features are inattention, hyperactivity and impulsivity. The DSM-IV definition (Diagnostic and Statistical Manual of Mental Disorders, 1994) is the one most often used to classify the condition. Affected children are unable to concentrate on activities other than self-chosen ones, such as computer games. They fidget and are constantly on the move, interfering and butting in on the activities of others. Affected girls are more likely to have attention deficit disorder (ADD) and are not hyperactive. They are more placid and tend to daydream, and their difficulties are not easily apparent to their carers and teachers. Children with ADHD and ADD frequently fail screening hearing tests at school entry and form one of a group of children with non-organic hearing loss. Children who have been abused and neglected in early childhood develop behaviour that is very similar to ADHD, and care needs to be taken in separating these conditions. However, especially in children with associated learning difficulties, medication such as methylphenidate (Ritalin) can dramatically improve school progress (Guevera and Stein 2001). The exact mode of action is not fully understood, but Ritalin appears to stimulate inhibitory pathways, leading to improved concentration and short-term memory (UK National Institute for Clinical Excellence 2006).

Social Difficulties

Children who have been abused and neglected are frequently encountered in paediatric practice. Child Protection services are coordinated by the local Social Services in the United Kingdom and there are regular interagency meetings in all areas to discuss how to improve local services. Within each local authority area, a designated doctor and nurse take the strategic lead in all aspects of child protection, ensuring that the necessary policies and procedures are in place and that training and supervision are available for everyone who works in the local health services, including reception staff, managers, doctors and nurses, and members of all the professions allied to medicine. In addition, in the UK, local health services for children have both a named doctor and nurse who are responsible for ensuring that child protection strategies for the hospital or community are in place. Comparable systems exist in other developed countries.

Types of Abuse

Neglect is the commonest form of abuse, but is often accompanied by physical, emotional or sexual abuse. A more detailed description of the types and presentation of abuse can be found in Barker and Hodes (2004).

Child Abuse in the Context of an ENT Clinic

Most usually, the clinician will be aware of Social Services involvement, as this is likely to have been mentioned in the referral letter. However, it is useful to include a question about any other agencies working with the family as part of the history, just in case such details have been omitted. The aim of Social Services involvement is to improve conditions for children in the family and thus enable the children's names to be removed from the Child Protection Register. The intent is to work in partnership with parents, but many parents still find the process stigmatising and may be reluctant to mention involvement of the Social Services.

Alerting Signs of Non-Accidental Injury and Abuse in a Clinic Setting

Parents who neglect their children often fail to attend outpatient appointments. For this reason, a robust system should be in place whereby details of children who fail to attend are sent to the referrer and to Social Services, if they are known to be involved. Presenting signs of abuse in toddlers and young children include:

1. Emotional withdrawal and lack of a warm relationship with parents.
2. Bruises, especially on the face or behind the legs.
3. Delay in the notification of injuries and inconsistent explanations of how they were incurred.
4. Dirty clothing and lack of personal hygiene.
5. Aggressive parents.
6. Evidence of substance abuse in parents.

If any of the above features are present, the examining doctor needs to consider the possibility of child abuse. Most often, several factors coexist. It is possible for any toddler to accidentally hurt themselves and bruises on the forehead or shins are often seen. When they are clearly accidental and family relationships are secure, there is no cause for concern.

What to do if Abuse is Suspected

As mentioned above, local health services for children have to have a named doctor and nurse who can be consulted for advice. However, in the first instance, trainees should consult with their senior colleagues if they have Child Protection concerns. At the beginning of every clinical attachment, trainees should enquire about Child Protection policies and procedures and establish the correct means of communicating any concerns they may have.

If the consulting doctor feels that it is not safe for children to leave the clinic with their parents or caregivers, it is necessary to arrange for parents to wait while more senior staff are consulted. A child could be sent for a hearing test, for example, to allow time for this. It is possible to consult Social Services about whether there is or has been involvement with the family, but they will not be able to interview a family without the referring clinician explaining the nature of his or her concerns to the children's parents or carers.

Links with Local Services

Within the UK, a network of organisations is responsible for the delivery of Children's services, and a similar pattern occurs in all developed countries.

Primary Care Team

The primary care team is based around medical centres (general practices), but includes close cooperation with community initiatives, such as "Sure Start", where preventive services are available to help those thought most in need. Parents in Sure Start areas have access to drop-in centres where advice about health, education and social services is available in a user-friendly way.

The Child Development Team

Most districts will have a Child Development Team, which, although located in a local clinic or hospital, carries out a lot of work with parents and children in their homes or at nursery and in school. The staff include therapists (occupational, physiotherapy and speech and language therapy), psychologists, as well as medical staff and staff seconded from Education and Social Services. Each child with complex needs should have a package of care and objectives that are reviewed regularly.

The Education Service

The Education Services are involved very early on, especially in the case of children with complex needs who may attend nursery from the age of 2 years in the UK. The type of provision may be in a specialised nursery or in a mainstream nursery with additional support. By 5 years of age, all children with complex needs, such as cerebral palsy or autism, will have a formal Statement of their Special Educational Needs, and all professionals helping the child, including hospital practitioners, may have to contribute to this.

Child and Adolescent Mental Health Services

Because many children and families have associated mental health needs, the Child and Adolescent Mental Health Services play a major role in supporting families.

Social Services

Each Local Authority has its own department of Social Services. In most cases the social workers working with children form a department within the main social services organisation. Each hospital also has its own social work department and the people working there are able to liaise with their colleagues within the community.

Non-Statutory Organisations

The role of non-statutory organisations is ever increasing. Many are listed in “Contact a family” (www.cafamily.org.uk). Often, organisations have been started by parents of children with unusual conditions and they provide information and support to other people and often fund raise for the medical profession.

Summary for the Clinician



- Children are not small adults. Those treating children need to be aware of several important factors that should be borne in mind during a paediatric consultation, and to apply these in the assessment and management of the child under their care.

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