

A HUNDRED YEARS AGO

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CLINICAL DIAGNOSIS IN CHILDREN

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THE DISEASES of children differ from those met with in adult life, in that some are peculiar to childhood and others manifest their more important symptoms in a different manner or degree.

Diagnosis in children rests largely on the result of the clinical examination. It is surprising how frequently some disease, such as heart or lung affections, are discovered, and which the parents have never suspected.

The history, of course, must be elicited as carefully as possible, but it is very frequently vague and unreliable. The child may be too young to say what is troubling it, and the mother can only state what appears to her to be the leading symptom.

As an example of this, I may mention the case of a small boy, who was brought up to the hospital with the complaint that he had been "lying about all the week and had a dirty mouth." I noticed the cheeks were flushed, and the alae nasi working, and, on examining the chest, found a well-marked apical pneumonia.

General appearance

The general appearance and expression of children, who are ill, are points which should be studied well. A child's face is frequently a clear index of the severity of the illness, or indeed of the actual complaint, from which it is suffering. Small children will often resent examination, and the opportunity should be taken of carefully, but not too openly, noting the general appearance whilst questioning the parent.

On the other hand it may be remarked that a child may be so severely ill as to be almost "too good"; he is too much taken up with his own ailment to bother about the presence of strangers.

As examples of points to be gained from a casual inspection, I may mention lung diseases – the flushed face and working alae nasi of a case of pneumonia, the anxious expression and rather laboured breathing of a case of broncho-pneumonia, the sallow complexion and difficult respiration associated with empyema.

The severity of a case of enteritis can be judged by the sunken appearance of the eyes and fontanelle and the pinched inelastic state of the skin. A peculiar meditative look is seen on the face of the child with tubercular meningitis, and a dull heavy appearance in typhoid or pyelitis. Extreme pallor will suggest a severe infection, e.g., diphtheria, rheumatism, or one of the anaemias of infancy.

The pinched anxious expression of the face, with perhaps a slight tendency to cyanosis, will suggest the severity of an abdominal condition, such as peritonitis.

The red crusted eyelids, running nose, and early blotchy appearance of morbilli, and the puffy eyelids, with perhaps subconjunctival haemorrhages, and bloated face of the child with severe pertussis are often met with. The mouth breather, the typical rickety head, the Mongol, the facies of congenital syphilis may all be recognized at a glance.

The cry of the infant

The cry of the infant may also assist in coming to a diagnosis – the improperly fed baby has, what can only be termed, a "hungry" cry.

Screaming, on the other hand, may be occasioned by colic, brain disease, or otitis media. Crying out on handling the limbs, apart from local injury or disease, may be associated with a general disturbance of nutrition as in rickets or scurvy. The character of the cry is often suggestive: the hoarse voice of laryngitis, the weak wail of the feeble infant, and the gradual loss of voice in diphtheritic laryngitis.

The cough should also be noted – the paroxysmal cough of pertussis, the hoarse barking cough in laryngitis, frequently met with at the onset of morbilli, the short persistent often painful, cough of pleurisy and pneumonia, and the inability to cough when the lungs are become choked with secretion as in severe bronchitis.

Examination

All these points may be made out before proceeding to examine the child, and, needless to say, the most unpleasant parts, e.g., looking at the throat, are left to the last.

It is usually advisable whilst examining the chest to let a small child sit on its mother's lap, where it feels more at home, and it is often best to listen to the back first, so as not to alarm the child by the sight of the stethoscope, and to accustom it to the feel of the chest-piece.

It is to be remembered that the apex beat of the heart in children under four years of age is normally situated in the fourth space, and often somewhat outside the nipple line. It has usually reached the adult position by 12-14 years of age.

The pulmonary second sound, as opposed to the case in adult life, is normally rather louder than the aortic second. Examination of the lungs in children

is extremely deceptive as regards the physical signs obtained. The breath sounds in small children are usually very distinct and, normally, rather harsh or "puerile". In comparing the sounds heard on the two sides of the chest, most reliance is to be placed on the "pitch" of the breath sounds, rather than on the doubtful query of prolonged expiration or bronchial breathing, which is unaccompanied by any marked impairment of the percussion note. Bronchial breathing may be heard at the apices in quite normal children, who are breathing deeply with their mouths open.

The abdomen is normally prominent in infants owing to the size of the liver, which extends half an inch below the costal margin. Babinski's sign, giving a normal flexor response in the adult, is extensor in children under three years of age; by that age, however, in a healthy infant, it should have become flexor. If, however, in premature or ill-developed infants, who are late in walking, a flexor response is obtained, Thomson states that it is of good omen, because it indicates that cerebral spastic diplegia is not in process of development, and, therefore justified the prediction that the children will ultimately be able to walk.¹

¹ Thomson's Clinical Examination and Treatment of Sick Children.

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