EARLY DIAGNOSIS OF THE CONGENITALLY UNSTABLE HIP

"If routine examination of the hips in every newborn infant can be nationally established, the problems of congenital dislocation of the hip which have plagued orthopaedists in times past can be almost completely abolished" (McCarroll 1965). This statement, from the United States, reflects the present optimistic attitude which prevails amongst orthopaedic surgeons and others in this country. In fact some authorities would go so far as to exclude the word "almost." This climate of thought is the direct result of the sterling work of von Rosen (1956, 1962) and Barlow (1962) who with insight and perseverance have developed the principles and practice of Ortolani (1937). Practitioners in the fields of orthopaedic, paediatric and obstetric services are very much aware of the importance of early diagnosis of the congenitally unstable hip, and no one would deny the extreme importance of neonatal diagnosis in prophylaxis. In consequence, the course of the congenitally unstable hip has been dramatically transformed as compared with the days of Putti. Some, however, are disturbed by statements made to the effect that in these modern times no child need suffer from congenital dislocation of the hip joint, with the implication that if such a tragedy occurs, the attending doctor is responsible for failure of diagnosis.

Five articles bearing on this subject appear in this issue. Smaill of New Zealand reports his experience of examining 6,000 consecutive newborn babies in a maternity unit, extending over a period of three years. Another article from the Edinburgh orthopaedic genetic research group reports on urinary oestrogen excretion studies in the newborn. It is of interest that their conclusions are at variance with those of Andrén and Borglin (1960), and that they were unable to confirm that there is a correlation between hyperlaxity of joints and neonatal dislocation of the hip. This once again places the question of etiology in the melting pot. The three papers from Scandinavia by Emnéus, Hiertonn and James, and von Rosen are welcome in that they report on further experience in the diagnosis and management of the unstable hip in Sweden. On reading these one gains the impression that difficulties still exist.

Let us turn to the problem of early diagnosis. Barlow (1968) reports that of 11,329 babies re-examined at one year three were found to have dislocated hips. Similarly von Rosen reports that of 43,500 children re-examined at one year again three had dislocated joints. Finlay, Maudsley and Busfield (1967) report no "missed cases" at one year in a series of 14,594 babies, although there were four cases in which dysplasia persisted in spite of treatment. These are excellent results which one wishes could be emulated in all units, but this unfortunately is not the case at present. Indeed, some observers in Britain suspect that despite the excellent work reported from Sweden, Britain and elsewhere, there are still intrinsic difficulties involved in the attainment of total prophylaxis. It appears that in spite of intensive propaganda in this country, children aged one year and older are still being referred to orthopaedic departments with dislocated hips, even though they were born in well regulated maternity units where individual practitioners personally examine each newborn. This is a disturbing state of affairs which cannot be ignored.

No doubt many plausible explanations could be put forward, such as lack of experience and knowledge on the part of medical and nursing personnel, inherent difficulties in early discharge units where babies might slip the net, and possibly others. The possible variation in incidence in different parts of the country may also be a factor. These, however, we consider do not fully explain the whole picture. Smaill mentions "missed cases" in his paper...
and incidentally stresses the unreliability of radiographs in diagnosis in babies less than four months old. Although we consider that failure of diagnosis in some cases may be due to lack of experience and human failure, we suspect that in spite of constant vigilance and routine testing by means of the Ortolani test and its variants, even the expert may sometimes fail.

On points of detail it may be agreed that unequal skin creases, limb length discrepancy and even limited abduction are of little or no diagnostic value in the newborn, whereas Barlow’s first and second tests, when expertly undertaken, will detect most cases. Perhaps it has not been stressed sufficiently that the test is often dependent more on visual and tactile senses than on the auditory recognition of clicks. It is generally agreed that if a click is noted once, even if not confirmed later, the hip should be considered as being unstable. We submit, however, that some hips may well remain dislocated throughout the manoeuvre and no “clunk” will be produced. Barlow (1968) mentions this pitfall: “A child with very tight adductors on one side may well have a dislocated hip but the adductors could be too tight to allow the reduction to occur. Consequently there is no click on carrying out Ortolani’s test and therefore the dislocation might be missed.”

We should therefore intensify our training of the staff in neonatal units and of doctors in general practice, as it is abundantly clear that if the original diagnosis is missed these children are seldom referred for treatment until they begin to stand and walk, by which time treatment is much more difficult. No doubt there is a case for clinical screening of babies at a later age. Public health services in this country (1967) are actively considering examining babies two to six weeks old for hip instability and other congenital lesions, as part of the Child Health Service Scheme, thus offering a second chance of picking up the “missed cases” at a time when treatment is simple. It is also suggested that a further check be made at six months, but of course at that age the Ortolani test is of much less value, whereas limited abduction and tight adductors are of more significance: by then also radiography is much more reliable. It must be stressed, however, that there is no better time for diagnosis than the neonatal period, and this must remain our prime object.

We owe a great debt to the teaching and dedication of the pioneers of early diagnosis in this field of orthopaedic surgery. It is our duty to tighten the net so that “crippling from congenital dislocation of the hip should soon recede into medical history.”

ROBERT OWEN.

REFERENCES


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