Diagnosing congenital dislocation of the hip

A large trial of ultrasonography might help

Congenital dislocation of the hip has been defined as "a congenital deformation of the hip joint in which the head of the femur is (or may be) partially or completely displaced from the acetabulum. The term embraces secondary hip dysplasia whether or not hip instability or dislocation persists." The conventional clinical tests for the condition detect either dislocation of the hip or displacement on provocation (Ortolani and Barlow tests respectively). Despite initial confidence in these tests neonatal screening has not reduced the number of cases of congenital dislocation diagnosed; the numbers may have even increased. The validity of the clinical test therefore remains in doubt.

Diagnosis, screening, and treatment of the condition depend on the basic premises that adequately trained staff can detect all abnormal hips at birth by clinical examination. This depends on two further assumptions: that all abnormal hips are clinically abnormal when tested and that abnormalities persist. Clinically detectable instability of the hip may, however, resolve in the first 24 hours after birth, which makes the timing of the clinical test critical. It has been suggested that enthusiastic or repeated clinical examination may actually provoke hip instability or harm. (In this week's journal Paterson et al highlight its dangers in the extreme case of infants with osteogenesis imperfecta (p 464).) Additionally, it has been estimated that most cases of unstable hips that are detected by clinical examination are false positive findings and the number of false negative findings is probably similar to that of true positive findings.

Ultrasonographic studies have supported Barlow's original observation that 60% of unstable hips are clinically normal by 1 week of age. Early expert treatment of displaced hips by abduction splintage undoubtedly leads to better results than those obtained with often necessarily repeated surgery in cases that are diagnosed late. The therapeutic dilemma, however, is whether to splint all unstable hips immediately or to delay splintage, given that in many cases instability resolves spontaneously. Immediate splintage results in overtreatment and possible complications such as avascular necrosis of the femoral head. Delaying splintage risks a falsely reassuring delayed negative finding on clinical testing; a delayed negative finding is not synonymous with a normal hip.

The importance of an accurate initial diagnosis of congenital displacement of the hip is therefore crucial for instituting the right early treatment and reducing the number of cases presenting late, in which surgical intervention is required. Economically there are also important implications.

Numerous techniques are available for improving the diagnostic accuracy of the clinical test. Neonatal radiography of the hip is not necessarily accurate because of possible misinterpretation by even experienced radiologists (mainly because of the difficulties of positioning the neonate). Magnetic resonance imaging is useful in established dislocation but is impractical for neonates and costly. Although results of vibration arthrometry during clinical examination correlate closely with the opinion of an experienced clinical examiner, the specificity of the techniques remains in question. The sound transmission test, in which sound is transmitted across the hip joint, reported has a sensitivity of 100% and a specificity of 23% with a certain level of decibel difference between hips; bilateral dislocation of the hip may, however, cause difficulty in interpretation.

Ultrasonography is a reliable method of examining the infant hip, providing accurate images non-invasively. Its specificity and sensitivity for detecting abnormalities are seldom quoted but seem to vary if inferred from treatment rates in different series. Certainly, early ultrasonography detects a high prevalence of abnormality of the hips, and consequently treatment rates may be unnecessarily high. In its favour, however, no false negative results have been reported in large series. A delayed ultrasonographic examination at the age of 2-4 weeks allows transient instability of the hip to resolve without compromising the results of treatment. Repeated ultrasonographic examination also allows the observation over time of hips for which the diagnosis is in doubt without necessarily condemning them to splintage. The role of ultrasonography in screening has yet to be defined. In selective screening it did not reduce the incidence of late cases of congenital dislocation of the hip.

Decisions about whether to screen every neonate ultrasonographically will have to await the outcome of a suitable long term trial—for which there is an undoubtedly need. Until then congenital dislocation of the hip will continue to cause difficulty and its management will remain imprecise.

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Abortion in Ireland

Confused on both sides of the border

Irish abortion laws are in a mess. In both countries abortion is illegal, although differences exist. 1 In 1983 an amendment to the republic’s constitution was passed, supported by two thirds of the voters, guaranteeing the fetus the same right to life as its mother. The campaign proved divisive, and since then the issue has been simmering. Conflicts have arisen over an interpretation of this amendment, which specified that providing information about abortion was forbidden. 2 The fact that the Irish High Court has recently banned students from providing information on abortion is hardly likely to settle the matter (p 442). 3

The matter came to a head earlier this year when a 14 year old girl who had come to England with her parents for an abortion was ordered back to the republic by the court. Subsequently the Irish Supreme Court effectively changed the law and decided that abortion in the republic could be legal if pregnancy was a “real and substantial risk” to a woman’s life. (The pregnant teenager in this case had threatened suicide.) 3 Although this ruling allowed the girl to have her abortion in the republic, she decided to return to England for the operation.

The decision still leaves much unresolved. For example, uncertainty still surrounds pregnant women’s right to travel. Since the ruling the office of the Irish director of public prosecutions has seemingly changed its practice: when a young man tried to persuade the police to prevent his former girlfriend travelling to England for an abortion he was advised that it was a private matter. 4 The antiabortionists now want a referendum to make abortion totally illegal again and were disappointed in failing to persuade voters to reject the Maastricht treaty, which, they believed, would enshrine the now too liberal law. 5 In addition, local commentators have suggested that the abortion issue could lead to a break up of the coalition between Fianna Fáil and the Progressive Democrats (who oppose a restrictive amendment) and result in the government’s fall. 6

The public is now likely to oppose any new restrictive amendment. Once opinion in the republic was firmly against abortion: in a Gallup poll in 1980 four out of five people agreed with a ban on abortion in all circumstances (in Britain the proportion was 12%; in the United States 18%). 7 But opinions have changed: in February this year a poll found that two thirds of those questioned backed changing the constitution to allow limited rights to abortion. 8 In a poll in April less than a third of both sexes believed that abortion should be illegal in all circumstances. (Among women under 35 only one fifth think that abortion should always be illegal.) 9 Attitudes have therefore moved nearer to those in other countries, and a restrictive amendment would be divisive.

Northern Ireland does not have the Abortion Act 1967, and it has been argued that even the 1938 Bourne judgment legalising abortion in cases of rape does not apply. 10 This may explain why in 1986 a major teaching hospital decided at the last moment not to proceed with an abortion on a 14 year old after rape (W Rolston, personal communication). Although carrying out abortion for fetal handicap or incest is not illegal, this has led to much confusion and uncertainty. To assess the situation more fully I wrote this June to all 43 Northern Irish consultant gynaecologists listed in the Medical Directory; so far 33 have responded, of whom one had retired. Nineteen said that they would perform an abortion for fetal handicap while three said that they would not. The 10 others said it depended on one case on whether fetal handicap was incompatible with life. Nineteen said they would carry out abortion for rape; similar numbers would do so if the woman tested positive for HIV or if her health was at risk.

These practices have developed with no legal support, which should be remedied. A strong case can be made for extending the law. The Department of Health and Social Security, Belfast, is apparently concerned about the problems of women who have to travel from Northern Ireland to England for their abortions but has said that the law could be extended only if change would “command broad support within the Province” (D Evans, personal communication to M Simms, 1988). Public opinion polls now support such a change. A poll of 651 adults aged 16-45 in February asked whether abortion should be legal in different circumstances. Four out of five said that it should be legal “where a doctor advises this as necessary to maintain the physical or mental health of the woman.” Three out of four agreed with abortion in cases of rape or incest. 11

The case for broadening the law seems unanswerable; the best solution would be to extend the Abortion Act 1967 to Northern Ireland. Women from Northern Ireland would no longer have to come to Britain for their abortions (1766 last year) and, if the government gave permission for one of the charities to open up a clinic near the border, neither would women from the republic (4158 last year). 11

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8 Coghlan D. 60% favour altering abortion ban. Irish Times 1992 March 2(2);col 1).