

A CLINICAL CLASSIFICATION OF CEPHALO-PELVIC DISPROPORTION

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'The art of obstetrics is more often travestied in the name of disproportion than in any other instance. The prediction that cephalo-pelvic disproportion will adversely influence labour, as well as the assessment of its extent and the treatment with which the problem is met, are more than matters of mathematical measurement and demand a skill and experience which no textbook can provide.' (Donald, 1959.)

Many vaginal deliveries, after Caesarean section in an earlier pregnancy, occur in patients in whom the original indication for the operation was disproportion. A number of these subsequent infants are larger than the firstborn. As a result, doubt exists whether the original indication was genuine, or whether the findings at the time of the operation were correctly interpreted. The looseness of the very term 'disproportion' may account for some of this inexactitude. An attempt has therefore been made to classify disproportion as a clinical presentation. This classification will not in any way detract from the skill required in the assessment and management of such cases. Nevertheless, if it is applied retrospectively as a routine when making the final summary of a particular labour, it will aid the obstetrician in the conduct of subsequent pregnancies and labours.

ULTIMATE TREATMENT OF CEPHALO-PELVIC DISPROPORTION

Clinically, the ultimate treatment of cephalo-pelvic disproportion may be listed under 6 main headings. In some instances 2 or more of these groups overlap:

1. Caesarean section — an operation to bypass the obstruction that exists between the foetal head and the maternal pelvis.

2. Craniotomy or tapping of the cerebrospinal fluid — operations that reduce the size of the foetal head.

3. Symphysiotomy or pubiotomy — operations that increase the capacity of the maternal pelvis.

4. Manoeuvres designed to alter the presenting diameter of the foetal head to a more favourable size, or even to change the presentation itself to a breech, e.g. Thorn's manoeuvre and internal version.

5. Procedures which aid descent, or both descent and rotation of the vertex, e.g. forceps delivery, and rotation and delivery using Kielland's forceps.

6. Procedures adopted to improve the efficiency of uterine action where such action is hypotonic or incoordinate, e.g. oxytocic-drip infusions, continuous caudal and epidural anaesthesia, and the use of the 'vacuum extractor' before full dilatation of the cervix.

ANALYSIS OF THE CAUSES OF CEPHALO-PELVIC DISPROPORTION

When analysed, the treatments employed in groups 1-3 indicate that an absolute obstruction to vaginal delivery exists *throughout* the labour. The disproportion is not related to the presenting diameter of the foetal head. In the majority of such cases the diagnosis is confirmed before the onset of labour. The cause for the cephalo-pelvic disproportion is in the maternal pelvis or in the size of the foetal head. If it is in the maternal pelvis,

e.g. contracted pelvis, it is permanent and will operate in all subsequent labours. If it is in the size of the foetal skull, e.g. hydrocephalus, the cause is temporary and, therefore, unlikely to recur in further confinements.

The procedures employed in groups 4-6, when successful, achieve vaginal delivery of a living infant without change in the size of the maternal pelvis. The cephalo-pelvic disproportion that exists in such cases is relative. It may be suspected before the onset, but is rarely confirmed until the patient has been in labour for many hours. Factors which may lead to or are associated with relative disproportion are:

(a) A presenting diameter of the foetal head other than the suboccipito-bregmatic or submento-bregmatic (mento-anterior).

(b) A presentation, such as occipito-posterior, which could complicate the mechanism of labour.

(c) A failure of progressive dilatation of the cervix. This finding may be either the cause or the effect of an unfavourable presentation or position.

It is accepted that many of the patients managed by the techniques of groups 4-6 are ultimately delivered by Caesarean section. This is particularly so where there is an additional factor, such as prolonged labour or foetal distress. It is following upon Caesarean sections in this category of disproportion that vaginal delivery of larger infants occurs. Therefore, the indication for the operation must not be classed as disproportion unless a large infant is delivered or a postpartum X-ray pelvimetry reveals a major degree of contracted pelvis.

CLASSIFICATION

A clinical classification of cephalo-pelvic disproportion, based on the above observations, can thus be formulated, as shown in Table I.

An obvious fault of this classification is that it is based mainly on the assessment of cases as they appear in labour. This is not as great a drawback as it may at first seem. In cephalo-pelvic disproportion the problem of management often only arises once the patient is in labour. Also, the conduct of subsequent pregnancies and confine-

TABLE I. CLINICAL CLASSIFICATION
Cephalo-pelvic disproportion

<i>Absolute</i>		<i>Relative</i>
<i>(true mechanical obstruction)</i>		
<i>Permanent (maternal)</i>	<i>Temporary (foetal)</i>	
Contracted pelvis	Hydrocephalus	Brow presentation
Pelvic exostoses	Large infant	Face presentation —
Spondylolisthesis		mento-posterior
Anterior sacro-coccygeal tumours		Occipito-posterior positions
		Vertex presentations with a diameter other than the suboccipito-bregmatic presenting. The so-called 'deflexed head'

ments is based on a retrospective analysis of the findings and outcome of the initial labour.

The unqualified use of the term disproportion as an indication for any obstetric procedure is not sufficient nor justified. It should always be coupled with the underlying cause and with a clear statement as to the state of the pelvis, e.g. absolute disproportion — contracted pelvis; relative disproportion — hydrocephalus, pelvis normal; or relative disproportion — occipito-posterior position, pelvis with an android brim.

In this manner much that is speculative in the management of labour following Caesarean section will be eliminated.

This view was probably held by those who formed the Standard Maternity Hospital Report Committee of the Royal College of Obstetricians and Gynaecologists. In the section covering disproportion, the cause (including any pelvic abnormalities) is requested.

SUMMARY

1. The ultimate methods of treatment in the management of cephalo-pelvic disproportion are analysed.
2. Based on this analysis a clinical classification of cephalo-pelvic disproportion has been formulated.
3. It is submitted that this classification will aid the obstetrician in the management of subsequent pregnancies and labours.