Symphysiotomy for feto-pelvic disproportion

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An updated version of this systematic review has been published and can be found online at www.cochrane.org. We will soon update the below RHL summary to reflect the updated findings of the systematic review.

Currently there are no experimental data on the relative advantages or disadvantages of symphysiotomy compared with alternative interventions. Clinical decisions on symphysiotomy should therefore continue to be made on a case-by-case basis.

RHL Commentary by Tukur J

1. INTRODUCTION

Symphysiotomy is the surgical separation of the fibres of the pubic symphysis. It is performed during labour (under local or general anaesthesia) to facilitate the delivery of the baby through the vagina. Symphysiotomy is indicated in cephalo-pelvic disproportion with cephalic presentation, including failed assisted delivery and arrested aftercoming head of the breech, and serves as an alternative to caesarean section. It is usually carried out either because the woman has refused caesarean section or if caesarean section is unavailable or the woman it is not a suitable candidate for caesarean section. Symphysiotomy results in a permanent increase in the pelvic diameter by up to 1 cm as the ligaments of the symphysis get divided (1).

Obstructed labour is a common maternal health problem in developing countries, causing about 8% of maternal mortality (2). In under-resourced settings, women in labour often arrive late at health-care facilities because such facilities are few and far and also because of social, cultural and economic reasons. Late arrival of women with obstructed labour often means that the woman's condition has worsened and health-care personnel have to resort to emergency measures. In the context of cephalopelvic disproportion, labour is often obstructed owing to biochemical derangement, rendering the patients unfit for caesarean operation. Symphysiotomy can be offered where skills are not available to perform a caesarean section. Even where caesarean section is available, some women may refuse caesarean section for personal (3) or sociocultural reasons. Since symphysiotomy does not leave an abdominal scar, the woman undergoing the procedure can deliver vaginally in subsequent pregnancies, making the supervision of those deliveries easier.

Symphysiotomy is a simple, low-cost procedure. It does not appear to be associated with greater morbidity than caesarean section (4, 5). In a series of 1752 symphysiotomies in Africa, there were three deaths (0.2%
mortality rate), none of which was related to the procedure itself. The mortality rate for caesarean section in African hospitals is 1.8% (6). It has also been reported that, if given the choice, some Nigerian women will prefer symphysiotomy to caesarean section (7). Despite its potential advantages, the skill for performing the procedure appears to be reducing among health-care workers around the world (5). The objective of this Cochrane review was to determine the effectiveness and safety of symphysiotomy versus alternative options for obstructed labour in various clinical situations.

2. METHODS OF THE REVIEW

The authors of the review planned to include in the review randomized and quasi-randomized controlled trials and studies presented only as abstracts (provided adequate details were available) in which symphysiotomy had been compared with an alternative technique of symphysiotomy or with alternative management method, including caesarean section, other obstetric procedures, allowing more time for labour to progress, augmentation of labour, transfer to health centre with more advanced facilities (e.g. for caesarean section), destructive procedures (e.g. craniotomy). The authors made a comprehensive search of the literature for suitable studies. They searched (up to August 2010) the Cochrane Pregnancy and Childbirth Group’s Trials Register, which is maintained through searches of the Cochrane Central Register of Controlled Trials (CENTRAL), weekly searches of MEDLINE, hand-searches of 30 journals and the proceedings of major conferences and weekly current awareness alerts for a further 44 journals plus monthly BioMed Central email alerts. In addition, the authors searched PubMed (1966 to 31 August 2010) without any language restrictions. Primary and secondary outcomes for the mother and baby were identified.

3. RESULTS OF THE REVIEW

The authors found no randomized or quasi-randomized trials of symphysiotomy for either inclusion in or exclusion from the review.

4. DISCUSSION

4.1 Applicability of the results

Currently there are no experimental data on the relative advantages or disadvantages of symphysiotomy over other alternative forms of interventions. Limited data from observational studies may be used to make clinical decisions on a case-by-case basis continue to be made. Other factors that may need to be considered include: data from epidemiological studies and case reports (to guide clinical judgement); experience of the caregiver in carrying out the symphysiotomy procedure; and the individual case being considered (such as the choice of the patient, ability to carry out symphysiotomy and the safety of symphysiotomy over other alternative procedures).

4.2 Implementation of the intervention

Symphysiotomy has been controversial. While it is considered by some to be a gruesome procedure that should be discarded from clinical practice, it is obvious that it can be life-saving in situations in which it is not practicable to offer alternative methods of delivering the baby. However, since at the present time no reasonable conclusion can be reached on this controversy based on available studies, the procedure should not be allowed to disappear from clinical practice. There is need to train health-care workers in this procedure. This could be done using audiovisual aids and pelvic models, bearing in mind that it is not a common procedure and the chances of learning it in regular practice are rather slim. The need to learn the procedure is more important in under-resourced settings because the need to use the procedure is more likely to arise in those settings.
4.3 Implications for research

Symphysiotomy is controversial, but it could be a life-saving interventions in under-resourced settings where caesarean section is not available. Hence, high-quality and robust research should be carried out in those settings. It is acknowledged, however, that for ethical and practical reasons it may be difficult to conduct randomized controlled trials on this intervention.

References

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