ELECTIVE CAESAREAN SECTIONS BEFORE 39 WEEKS an audit

Asha Bhalwal, MRCOG; Subhra Chari, MRCOG; Heather Pratt

The National Institute for Clinical Excellence (NICE) guidelines (April 2004) recommend that uncomplicated elective Caesarean sections should be carried out after 39 completed weeks of pregnancy in order to reduce the incidence of respiratory distress syndrome (RDS) and neonatal admissions. Are these standards being met?

MATERIALS AND METHODS

We carried out a retrospective review of all Caesarean sections before 39 weeks at the Royal Lancaster Infirmary, for six months from July 2005.

Audit standards

1. Uncomplicated elective Caesarean section should be performed >39 wks (NICE)
2. Uncomplicated breech presentation at term should be offered external cephalic version in order to avoid Caesarean section (Royal College of Obstetricians and Gynaecologists)
3. Previous Caesarean section should be offered vaginal birth after Caesarean section (NICE)

RESULTS

- 27% of elective Caesarean sections were performed <38 weeks
- 52 patients were operated upon before 39 weeks. Of these, 14 were for clinically justifiable reasons. These included placenta praevia, breech with intrauterine growth restriction (IUGR), twins with IUGR, pre-eclampsia and previous classic section
- 12 of the 52 were breech presentations and only 5 of these were offered external cephalic version (ECV). None of the women with one previous Caesarean section had documented evidence of a discussion regarding a trial of vaginal delivery
- **38 women were operated upon without obvious clinical justification before 39 weeks**

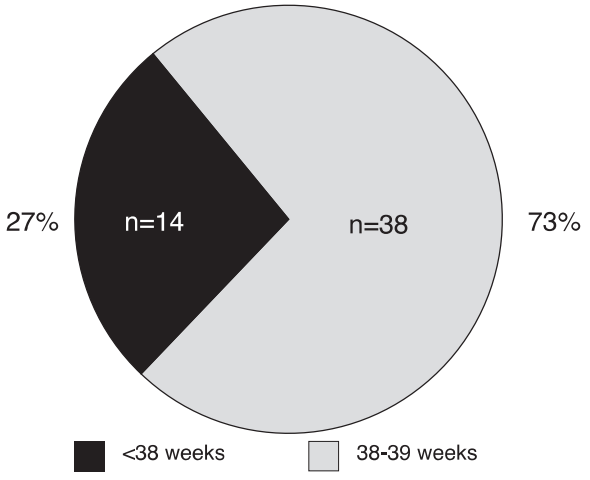

Figure 1 Time of Caesarean section (n=52)

Neonatal outcomes

- Mean Apgar scores for all babies were 8.8 and 9.8 at 1 and 5 minutes respectively, range (3-10, 8-10)
- **11% (6) of the babies were admitted to the neonatal unit (NNU)**. Of these, 2 were in the 'non-justifiable' group and 1 remained in NNU for 14 days

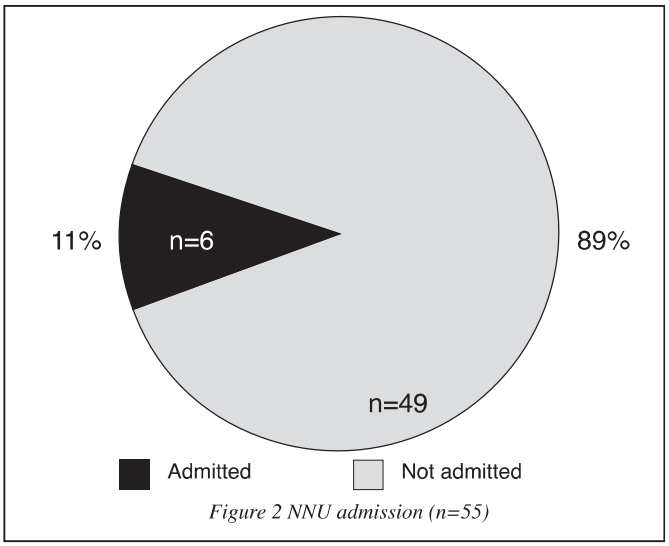

Figure 2 NNU admission (n=55)

Gestation	Indications	Duration	Ventilated	Diagnosis	Home
37+5	Breech	15 days	Yes (2 days)	RDS	Yes
38-39	Prev C/S		No notes		
35+1	IUGR	19 days	No	Twin II	Yes
32+2	IUGR	16 days	No	RDS	Yes
30	IUGR	45 days	No	Prem	Yes
37+3	Prev C/S			Cong. abnorm.	

Table 1 Clinical details of six babies who required admission to neonatal intensive care, together with observations on gestational age and indication for Caesarean section

SUMMARY OF RESULTS

- 27% of elective Caesarean sections were performed <38 weeks
- 11% of these neonates were admitted to NNU
- ECV was offered in only 5/12 breech presentation (42%)
- Vaginal birth after Caesarean section not documented as being offered to **any** woman with one previous Caesarean section

DISCUSSION

NICE guidelines in April 2004 stated that '*The risk of respiratory morbidity is increased in babies born by Caesarean section before onset of labour; this risk decreases significantly after 39 weeks. Therefore, planned Caesarean section should be performed after 39 weeks*.'

It is of interest that of the patients who had Caesarean sections before 39 weeks in contradiction to NICE guidelines two babies required support on the NNU.

"It is of interest that of the patients who had Caesarean sections before 39 weeks in contradiction to NICE guidelines two babies required support on the NNU"

One of the reasons for doing Caesarean section at less than 39 weeks in our unit is that there are only three elective Caesarean section lists per week resulting in occasional booking of Caesarean section earlier then 39 weeks. There is also some pressure from mothers to be delivered as early as possible so that the procedure is planned and they do not risk having it done after labour has started.

According to the NICE guidelines ECV should be offered to all uncomplicated breech presentations at term, which will reduce Caesarean section rate by 50%. This was discussed and will be re-audited to ensure that ECV is at least offered, if not accepted.

We could also reduce the Caesarean section rate by offering vaginal birth after Caesarean section. **Again, there is some pressure from the mothers who prefer elective Caesarean section rather than risking another emergency procedure. Counselling regarding the outcome of a trial of labour should, perhaps, start at a very early stage in the pregnancy or even on the post natal ward after the first Caesarean section.**

FURTHER READING

NICE clinical guideline April 2004

Royal College of Obstetricians and Gynaecologists. Management of breech presentation. Guideline no. 20. London. RCOG press. April 2001

Cheng M, Hannah M. Breech delivery at term: a critical review of the literature. Obstet Gynecol 1993;82:605-18

Jordan B. External cephalic version as an alternative to breech delivery and caesarean section. Soc Sci Med 1984;18:637-5

Royal College of Obstetricians and Gynaecologists Clinical Audit Unit. Effective Procedures in Maternity Care Suitable for Audit. London: RCOG Press; 1997. 4.7 Breech presentation at term, p 32.1

Gerten KA, Coonrod DV, Bay RC, Chambliss LR. Caesarean delivery and respiratory distress syndrome: does labor make a difference? Am J Obstet Gynecol 2005;193 (3 Pt 2):1061-4

Sturchfield P, Whiteker R, Russell I, on behalf of the Antenatal Steroids for Term Elective Caesarean Section (ASTECS) Research Team. Antenatal betamethasone of neonatal respiratory distress after elective caesarean section: pragmatic randomised trial. Br Med J 2005;331(7518):662-4

Alderdice F, McCall J, Bailie C, *et al*. Admission to neonatal intensive care with respiratory morbidity following 'term' elective caesarean section. Ir Med J 2005;98(6):170-2