

Initiating Breastfeeding : The Influence Of Obstetric Anaesthesia And Analgesia

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Summary:

This review article examines how increasing use of technology in childbirth has resulted in the frequent use of pharmacological anaesthesia and analgesia for labor pain relief and delivery. The detrimental effects of caesarean deliveries and epidural procedures on breastfeeding are discussed, with the conclusion that they should be avoided so far as possible by use of non-pharmacological pain relief. When interventions have been unavoidable, skilled maternity care, intrapartum and postpartum, can help women to breastfeed.

The benefits of breastfeeding to both mother and child are well known and acknowledged by Indian health professionals. A global goal articulated by WHO and UNICEF (1989, 1990, 1993) seeks to enable all women to practice exclusive breastfeeding from birth to at least 4 and if possible 6 months of age, to sustain breastfeeding with complementary foods well into the second year and preferably much longer (Palmer and Kemp 1996). Arising from this goal, the Baby Friendly Hospital Initiative sets global criteria for maternity care that promotes, protects and supports breastfeeding.

In India, by the end of 1997, over 1000 hospitals had achieved this rigorous standards. Nevertheless, much remains to be done to ensure that every mother and infant experience the conditions which make breastfeeding easy to start and sustain.

The major international effort to promote and support breastfeeding has been paralleled by an increasing tendency to medicalise the childbearing process (Notzon 1990). Rates of caesarean section and operative vaginal delivery are frequently used as an indicator for more complicated medical care. Many countries have noted rapidly rising rates of caesarean section, as in Brazil with 32%, USA 24%, Canada 19%, and Australia 18% (Notzon 1990). Increasing medical control over childbirth has also resulted in increased professional control over the postnatal period. Breastfeeding has suffered under the medical regimes with women exposed to conflicting and incorrect advice (Palmer 1988). Frequently such advice has included timetable feeding, top-up artificial feeds, keeping the infant in a separate room, and other out of date practices. The BFHI has however created a movement in India for science-based postpartum management, emphasizing 24-hour maternal closeness and exclusive breastfeeding in response to the infant's signals.

While medical intervention is both useful and life saving, in many instances, indiscriminate use serves only to disempower women and interfere with the natural birth process. Additionally, the effects of interventions are often poorly evaluated, particularly long-term effects (Simkin and Dickersin 1996). The effect of anaesthesia and analgesia on the initiation of breastfeeding is one such area. Providing appropriate intrapartum pain relief, and help to mothers who have needed surgical interventions, remain challenges to maternity staff who wish to support breastfeeding.

Caesarean delivery

Available evidence suggests that low levels of infant mortality can be achieved in some populations despite a low rate of caesarean delivery. Recommendations set out by the World Health Organization state that a caesarean section rate in any country exceeding 10-15% is not justifiable (WHO 1985). Many other organizations (CIMS 1996) and researchers (Francombe and Savage 1993) agree that modern, safe, evidence-based practice should produce a caesarean rate no higher than 15%. A fundamental element of support to breastfeeding is then to ensure that no needless caesarean deliveries are performed.

Much research has been published supporting the view that caesarean section, as usually managed, adversely affects breastfeeding, while some studies have shown no effect on early breastfeeding outcome (Perez-Escamilla, et al 1996). However, these studies do not follow longer-term breastfeeding patterns to learn if they are optimal.

Caesarean section has been shown to affect initiation of breastfeeding in four major ways. First, support from professionals often reflects lack of clinical training. The caesarean mother frequently needs more help to position the baby at the breast and lack of skilled help is detrimental to this process (Perez-Escamilla, et al 1992). Second, if a maternity facility does not practice post-caesarean rooming-in, long periods of maternal-infant separation occur. As stated by WHO/UNICEF (1989), separation results in poor rates of breastfeeding in the first few hours after birth (Margen, et al 1991). Pre-lacteal feeding from bottles also becomes more likely for the separated infant.

Third, research has noted an association between lower breastfeeding frequency and caesarean section performed under general anaesthetic. Suggested reasons include reduced maternal mobility and awareness in the first hours post delivery (Ellis 1992). Finally, drugs administered to the mother during caesarean section have been associated with varying degrees of adverse neurobehaviour in infants. These depend on the dosage, route of administration, the drug-to-delivery interval and

frequency of administration. Effects include changes in visual attentiveness, reduced alertness after birth (Hodgkinson and Marx 1981) and reduced ability to suckle (Crowell, et al 1994).

Medical staff can take steps to address the first two of these difficulties, can help the mother hold her infant for the first feeds to compensate for her limited mobility, and can consider if different choices of anaesthetic drug and pathway might lessen the fourth effect. It is especially important that the caesarean mother and her family be reassured that with staff support, help and encouragement, all difficulties can be overcome (Crowell et al 1994). The presence and support of family members is vital, especially when staff levels are poor. Often female relatives have knowledge and practical expertise in breastfeeding that can help in both the short and long-term. The importance of rooming-in and the other "Ten Steps to Successful Breastfeeding" (WHO/UNICEF 1989) can be explained, and discussion can dispel any misunderstandings which might lead the family to offer bottle supplements or other well intentioned but unsuitable help at home.

Epidural Procedures

One of the central tenets of the medical approach to childbearing is the use of pharmacological drugs to relieve pain. Epidural anaesthesia and the use of analgesic drugs such as Pethidine Hydrochloride (Pethidine) and Demerol (Meperidine) have increased in parallel with rates of caesarean section (Francombe and Savage 1993). In some industrialized countries, maternity units have epidural rates exceeding 50% (McCourt and Page 1996). Epidurals are associated with longer labor, increases in caesarean section or forceps delivery rate, maternal intrapartum fever, neonatal sepsis and maternal backache postpartum (MacArthur 1994, Liberman et al 1997).

Little research exists examining the effects of epidural administered anaesthesia on the initiation of breastfeeding. Adverse changes in neonatal neurobehaviour have been noted following epidural. Infants of mothers who received epidural Bupivacaine have been noted as less responsive and alert in the first

few hours after birth (Sepkoksi et al, 1992). Depressed motor abilities and poor state control characterize these infants soon after birth, and adverse effects have also been reported at one month, in an article that reviews available evidence (Walker, 1997).

Epidurals are a complex issue to examine as many factors may influence the initiation of breastfeeding. It would be too simplistic to attribute problems to the use of drugs alone. Factors such as the length of labor, type of delivery, and physical and psychological effect of a more medicated birth also need consideration. However, epidural anaesthesia is a popular method of pain relief and is considered safer than general anaesthetic for caesarean section (Wagner 1996). Research that examines the effect of this procedure on immediate and long-term breastfeeding appears urgently needed, especially with an "epidural epidemic" occurring in many countries (Wagner 1996).

Analgesics

As with epidurals, research examining the effect of narcotics on the initiation of breastfeeding is rare. Studies have been published which demonstrate that babies of mothers medicated during labor tend to display a depression in rooting and sucking behaviour (Crowell, et al 1994, Nissen, et al 1995). Timing of the medication may be significant. Analgesia given less than one hour prior to delivery may disturb suckling less than that administered earlier (Walker 1997).

Additionally, Rajan (1994) described how the use of analgesics is linked to increased rates of obstetric intervention. These compound to influence breastfeeding rates, with labour medicated mothers less likely to still be breastfeeding at 6 weeks postpartum. Reasons for this association are complex to unravel. However, physical and mental trauma associated with medical intervention are thought to be the key. Combined with poor breastfeeding support, conflicting advice and maternal/infant separation, the detrimental effect on early breastfeeding can be appreciated (Palmer & Kemp 1996). Non-pharmacological means of pain relief should be used so far as possible throughout normal labours. These

include a quiet and reassuring atmosphere and continuous companionship of a supportive person who may be family member of the mother's choice (Klaus et al, 1995). Additional helpful practices include changes in maternal position, counterpressure, touch and massage. Where they are traditional, means of focussing attention and distracting the mother from uterine sensations, such as reading aloud from scriptures, continuous quiet verbal encouragement from attendants, or soothing music may also be employed (Enkin et al, 1995). Throughout normal labour, the skilled attention of health care professionals can minimize need for drugs and other interventions.

Conclusion

Childbirth and breastfeeding are unique experiences for women, to be cherished and protected by maternity caregivers. Care and management needs to use research-based evidence as a guide to develop practice which is responsive and sensitive to women's needs. Yet current birth management includes increasing use of technology, pharmacological anaesthesia and analgesia, and caesarean deliveries. No one would advocate withholding these valuable interventions when they are truly needed. Nevertheless, drugs frequently used to relieve pain have been found to affect infant neurobehaviour and maternal response, especially in the first hours after birth. This time period is crucial for the initiation of breastfeeding and adverse influences have been shown to damage that process.

Further research is required into the effects of anaesthesia and analgesia on breastfeeding. The potentially detrimental effects of the methods presently used need to be acknowledged, and non-pharmacological pain relief made available to mothers. Family members may well provide the support needed through labour and beyond, and their aid should be encouraged. Breastfeeding can still be successfully initiated following any necessary use of drugs, but requires trained support and extra attention to overcome the associated difficulties.

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