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Trends in birth choices after caesarean section in Japan: A national survey examining information and access to vaginal birth after caesarean

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ABSTRACT

Objectives: in the context of a rising caesarean section (CS) rate in Japan, the objectives of this study were; to investigate the national situation for women's birth options after primary CS; to explore characteristics of institutions accepting planned vaginal birth after caesarean (VBAC); to identify the timing and type of information given to women about their birth options by health professionals.
Design: a national census study using a self-administered postal survey of nursing managers within obstetric departments in Japanese hospitals and clinics was conducted. Data were analyzed to explore characteristics of institutions accepting or not accepting VBAC and information given to women about planned VBAC and planned repeat CS.
Setting: institutions included hospitals and clinics providing childbirth services throughout Japan.
Participants: nursing managers from hospitals ($n=303$) and clinics ($n=196$) completed surveys about their institutional policies and practices around birth after CS.
Findings: only 154 (30.9%) of 499 institutions examined, accepted planned vaginal birth as an option for birth after CS. The success rate of VBAC was 77.0% in these institutions. Availability of transport services for institutional transfer and existence of a Maternal Fetal Intensive Care Unit (MFICU) were significantly associated with acceptance of VBAC (OR=5.39, $p<0.001$; OR=2.96, $p=0.04$). Information about options for birth method was mostly provided in the form of consent documents, and doctors were the sole provider of information about method of childbirth in 55.7% of institutions. Nursing managers described challenges in caring for women who strongly desire VBAC when women did not have access to information or if institutional policies conflicted with women's wishes. They recommended evidence-based information for women regarding birth choices after CS and recognised the necessity of emotional support for women faced with decision dilemmas.
Key conclusions: institutional policies and practices for birth after CS vary widely in Japan, with evidence of limited opportunities for women to make informed choices about planned VBAC. It was difficult for nurse managers to support women to choose VBAC when institutional policy conflicted with this choice and when women did not have consistent or balanced information.
Implications for practice: strategies are needed to support women as well as pregnancy care providers to support women to consider VBAC as a possible birth option after CS and to expand the use of shared decision making in pregnancy care settings in Japan.

Introduction

In the 30 years since the World Health Organisation (WHO) recommended a caesarean section (CS) rate of no higher than 15% (WHO, 1985), the rate of caesarean birth has increased steadily

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What is the plan of care for women who prefer trial of labour after caesarean (TOLAC)?

1. Obtain written informed consent for TOLAC describing the risks associated with a TOLAC. (A)
2. Confirm that the woman meets all of the following five conditions necessary for a safe TOLAC:(C)
   1) No presumed cephalopelvic disproportion.
   2) Availability of emergency caesarean delivery and emergency treatment for uterine rupture
   3) Only one previous caesarean delivery.
   4) Previous uterine incision was a low transverse incision with uneventful postpartum course.
   5) No history of uterine rupture or *trans* – myometrial surgery.
3. Do not use prostaglandin for induction and/or augmentation of labour. (A)
4. Monitor fetal heart rate patterns using cardiotocography during TOLAC .(A)
5. Monitor mother's vital signs and abdominal pain after vaginal delivery. (B)

Fig. 1. Clinical Guidelines for Trial of Labour after caesarean (TOLAC) in Japan. *Source*: Guideline for obstetrical practice in Japan (Minakami et al., 2011, pp.1186–1187) Note: (A)–(C) indicate the recommendation level for each statement. Answers with recommendation level A or B are regarded as current standard care practices in Japan. Level A indicates a stronger recommendation than level B. Answers with recommendation level C refer to cases where it is uncertain whether the potential benefits outweigh the possible risks. Thus, care corresponding to answers with a recommendation level C does not necessarily need to be provided (p.1175).

around the globe. Over recent years, the reported CS rates have risen and remain over double the WHO recommendation in many countries including the United States (32.2%), Australia (32.3%), South Korea (36.9%), Italy (39.0%) and China (52.5%) (Menacker and Hamilton, 2010; Meloni et al., 2012; Australian institute of Health and Welfare, 2014; Chung et al., 2014; Hellerstein et al., 2015). While judicious use of CS can potentially benefit the health of women and infants, it is increasingly clear that rates above 15% are not associated with further improvements in childbirth outcomes (Volpe, 2011). In fact there is growing concern about the harms associated with unnecessary primary CS and the cumulative effects of repeated caesarean surgeries with new attention to strategies for the safe prevention of primary CS (Guise et al., 2010; ACOG, 2014). As the search for determinants of unnecessary CS continues, intervention cascades that occur during labour and result in surgical birth have been found to be stimulated by a combination of medical, social, cultural and institutional factors, unique to each country and population of women (Coleman et al., 2009; Fenwick et al., 2010; Leone, 2014).

A similar trend of intervention has now been observed in Japan, where the CS rate has increased nearly threefold in the past 30 years, rising from 7.3% in 1984 to 19.2% in 2011 (Mother"s & Children"s Health & Welfare Association, 2015). Although this rate is still lower than rates seen in other countries, factors that have contributed to this increase are likely to continue (Niino, 2011; Takeuchi, 2013). There are legitimate concerns that Japan will follow countries with rates over 30%, quite possibly within the next 10 years.

There are many factors that have led to increasing rates of CS in Japan. Factors include an increase in primary CS rates due to changes in obstetric practice guidelines, increase in maternal request for scheduled CS, increase in emergency CS, use of continuous monitoring during labour and increase in repeat CS rates after previous CS (Niino, 2011). As in other countries, primary CS presents a decision dilemma in future pregnancies for women and providers.

In Japan, as in other countries, when women are given a choice regarding mode of birth after previous CS, they can find it difficult to know what method of birth is best for them, their infant and family (Torigoe, 2010). Women around the world face negative feelings and fears about their previous birth experience and sometimes experience conflict between their personal preference and family preference, in addition to fears about medical risks presented to them, such as rupture of the uterine scar (Emmett et al., 2006; Moffat et al., 2007; Shorten et al., 2014). Decisional conflict about birth choices has been reported in the literature and various intervention studies about decision support have been conducted, including the development and evaluation of decision aids (Shorten et al., 2005; Montgomery et al., 2007; Farnworth et al., 2008).

Decision aids can be effective in reducing decisional conflict and preparing women for making decisions about birth (Shorten et al., 2005; Montgomery et al., 2007; Farnworth et al., 2008). Decision aids are more likely to be found in settings where there is a culture of shared decision making (Obeidat et al., 2013). However, their use in clinical settings is inconsistent and partly culturally determined. It is not currently known to what extent decision aids for birth after CS are used in Japan. It is also the case that there may be limited opportunities for women to consider a choice between planned vaginal birth after caesarean (VBAC) and planned CS in Japan. In some settings, as a result of fear of litigation and hospital policies, there is little support for VBAC as an option for women (Niino, 2011; Takeuchi, 2013).

Maternity care is provided in both private and public healthcare facilities in Japan; birth expenses are covered under a universal insurance system by national government or union health insurance programmes. Women can freely choose the place of birth and their maternity provider (Kataoka et al., 2012). Midwives are key care providers in normal pregnancy cases, and manage birth as a physiological event. There are more midwives employed in hospitals (62.0%) compared to clinics (25.5%) (Japanese Nursing Association, 2014). There has been an increase in the number of mixed division maternity wards (Japanese Nursing Association, 2013) which makes it more difficult to provide one to one midwifery care during labour.

There has been concern by researchers that Japanese women play a passive role in the hospital setting, obeying doctor's recommendations rather than actively engaging in informed decision making (Yamasaki, 2001; Behruzi et al., 2010). The mode of birth is often decided by obstetricians rather than by pregnant women (Matsuoka and Hinokuma, 2009).

The clinical guideline for obstetric practice for women who are eligible to consider VBAC in Japan 2011 (Minakami et al., 2011) is currently based on a combination of evidence and consensus among Japanese obstetricians (Fig. 1). Statements with a recommendation level A or B represent the current standard of care for women in Japan. Statements with a recommendation level C refer to a situation where uncertainty remains regarding whether