

Selection of auspicious time for delivery is associated
with giving birth before 39 weeks of gestation
among women receiving cesarean delivery in Taiwan

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Introduction(1)

- Women who were delivered by elective cesarean delivery at term were found to be at higher risk of respiratory disorders compared with those born by vaginal delivery.
- An increased risk for respiratory distress syndrome was found in infants delivered by elective cesarean delivery whose birth gestational age was 37⁺⁰ to 38⁺⁶ wk, but there is no increased risk after 39⁺⁰ wk.
- The risk of respiratory morbidity among term infants receiving elective cesarean deliveries increased with decreasing birth gestational age.

Introduction(2)

- The rate of cesarean delivery in Taiwan was between 32% and 35% from year 2002 to 2010, reasons for cesarean delivery were medical reasons or maternal request.
- A scheduled cesarean delivery allows women to determine the hour, and the date for their child birth.
- Traditional Chinese culture has strong effect on choosing the timing for a cesarean delivery in Taiwan.
- Many Taiwanese women receiving cesarean delivery select auspicious time to deliver before the onset of labor.

Introduction(3)

- In Chinese culture, women's wish to deliver at an auspicious time could increase the risk for delivery < 39 weeks of gestation among women who planned a cesarean delivery.
- Few studies have examined cultural factors affecting cesarean section before 39 weeks of gestation.
- The objective of this study was to examine the effect of selection of auspicious time for birth on delivery before 39 weeks of gestation among mothers who received a cesarean delivery in Taiwan.

Methods(1)

Study participants

- This study applied a retrospective cohort design.
- The study participants were recruited from two medical centers, a regional hospital, and a district hospital in Taipei Area, Taiwan.
- Pregnant women who had an age over 20 years, and had no pre-existing conditions and complications during early pregnancy.
- There were 473 women completed this survey: 151 women had a cesarean delivery and 322 women had a vaginal delivery.
- **This analysis only included 151 women who had a cesarean delivery.**

Methods(2)

Data collection

- The study participants filled up structured questionnaires at 20 to 24 weeks of pregnancy and 5 to 7 weeks after delivery.
- Data were collected from February 2006 to February 2007.

Methods(3)

Measurement

- A structured questionnaire was used to collect the data.
- The first questionnaire (20-24 weeks gestation) included background information, obstetrical variables, medical factors, and cultural factor (selecting auspicious time for birth and level of belief in the timing of birth influencing the child's fate).
- If the women had a cesarean delivery, the questionnaire (6-8 weeks after delivery) included baby gender, gestational age, physician gender, cesarean delivery with medical indications, and selection of auspicious time for delivery.

Methods(4)

Data analysis

- Descriptive analysis was performed using frequency, percentage, mean, and standard deviation.
- Independent sample t test and chi-square test were used to examine differences between women who delivered before and after 39 weeks of gestation.
- Multiple logistic regression was used to identify factors associated with cesarean delivery before 39 weeks of gestation.

Result (1)

- The mean age of the study participants were 32.11 years.
- 58.3% of the women were primipara. More than 80% of the multiparous women had a prior cesarean delivery.
- The results showed that 73 women (48.3%) had cesarean delivery before 39 weeks (35~38 weeks) of gestation in Taiwan.
- The mean birth gestation was 39.34 weeks for women who did not select auspicious time for cesarean delivery (mean different = 1.18 weeks, $p < 0.001$).

Result (2)

- Women who selected an auspicious time for delivery were more likely to have a cesarean delivery before 39 weeks of gestation (66.7% versus 23.4%, $p < 0.001$).
- Women who had used assisted reproductive technology and reported diseases before pregnancy were more likely to receive their cesarean delivery before 39 weeks of gestation (87.5% versus 46.2%, $p = 0.02$; 69.6% versus 44.5%, $p = 0.02$).
- Multiparous women and women who had a prior cesarean delivery were more likely to deliver before 39 weeks of gestation (60.3% versus 39.8%, $p = 0.01$; 64.7% versus 41.7%, $p = 0.142$).

Result (3)

- The results of the logistic regression analysis showed women who selected auspicious time for delivery were more likely to receive their cesarean delivery before 39 weeks of gestation (OR=5.33, 95% CI: 2.35-12.09).
- Women who reported diseases before pregnancy, and who had received assisted reproductive technologies (ART) were more likely to receive their cesarean delivery before 39 weeks of gestation (OR =3.12, 95%CI 1.056- 9.203 ; OR =10.03, 95%CI 1.019- 98.744).

Discussion(1)

- We found in this study that mean birth gestational age was 38.66 weeks, and about half of the women had their cesarean delivery before 39 weeks of gestation in Taiwan (mean =37.59weeks).
- The American College of Obstetricians and Gynecologists (ACOG) recommended that cesarean delivery should not be performed before 39 weeks unless there is documentation of lung maturity.

Discussion(2)

- In Taiwan, as the fertility rate drops, women have fewer children and a higher expectation on the health and well-being of children. Therefore, women who decided to have a cesarean delivery choose an auspicious time as a blessing for their child. But increase the risk for delivery <39 weeks.
- Information should be provided to all pregnant women and their family concerning the risk of delivery before 39 weeks for their babies. Because of the rising incidence of cesarean delivery, appropriate timing of cesarean delivery is important to prevent unnecessary neonatal (respiratory) morbidity.

Discussion(3)

- Taiwanese women believe giving birth at an auspicious time could contribute to a better life for the newborn, meanwhile obstetricians are willing to offer the cesarean delivery option to women although that may increase the risk of adverse outcome.
- Several studies have reported that the desire of have a child born on an auspicious date and time may be one major reason for cesarean deliveries on maternal request in Taiwan.
- A study reported that because women can choose an auspicious time for new born children in Taiwan, cesarean deliveries are more common on auspicious days.

Discussion(4)

- In this study women who had diseases before pregnancy had a higher odds for cesarean delivery before 39 weeks of gestation.
- However, all of the diseases were not medical indications for cesarean section. Suggesting the elective nature of their cesarean section.
- Therefore, education, interventions, and programs are needed to build the confidence of delivery among women with diseases before pregnancy.

Discussion(5)

- Previous studies found that women conceived with ART are more likely to have a cesarean section comparing with women without ART.
- To make ART the standard of care in the treatment of infertility, intensive counselling of patients, and an increased sense of responsibility in the health care provider. It is critical that women are not only understand about the potential risks and benefits associated with cesarean section.
- Sample size cesarean women only, future studies can base on our results to plan a more appropriate size for this group.

Conclusion

- Health professionals should advise women to deliver after 39 weeks of gestation unless the delivery is medically indicated.
- Consultations on appropriate time to deliver should be provided with special attention to women who want to select an auspicious time and who had received assisted reproductive technology.
- Health professionals should be aware of the factors that affect a woman's decisions about cesarean section and provide information on treatment options in order to help and support women in making treatment decisions. It might help in reducing women's wish to an elective cesarean section.



Thank you for your attention