The rising cesarean section rate in China: a call for action

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Commentary

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Dear editor,

In the past several decades, the world has been experiencing a rapid increase in cesarean section rate, and the increase varies across global regions. Cesarean section without a medical indication has become a cause of public concern.

In the United States around 30 % of women deliver by cesarean section, and across Europe general cesarean section(CS) rates vary from 17% to 52%, and United Kingdom ranging from 24.6% in England to 29.9% in Northern Ireland. Australia's cesarean delivery rate increased from less than 20% in 1998 to approximately 30% in 2008. In 2014, the cesarean section rate in China was 34.9%, with geographic variation ranging from greater than 60% in some supercities to less than 10% in some rural areas. What was worse, from 2008 to 2018, the rate displayed an increasing trend. However, the increase in cesarean rate were not associated with improved perinatal outcomes, regardless of whether starting cesarean rates were already high or not. On the contrary, adverse perinatal outcomes, such as neonatal intensive care unit admissions increased under this tendency. After the outbreak of COVID-19, this situation is getting worse. It calls for action to reduce the proportion of cesarean without indication.

The increase in cesarean rate is largely driven by cesarean without indication, cesarean delivery on maternal request(CDMR) has been a major concern. About 2.5% of all births in the United States are cesarean delivery on maternal request. While in China, from a 18-year retrospective study included 1317774 primiparous women with singleton pregnancy from 1993 to 2010 in 26 counties/cities in 3 provinces in China, they found that the prevalence of cesarean births and CDMR were 37.6% and 10.0%, respectively. Cesarean delivery on maternal request(CDMR) accounted for 26% of all cesarean births. While what shocked us was the increasing tendency. In Southern urban area in China, the prevalence of cesarean births increased from 29.4% (during the 1993-1995) to 58.7% (during the 2006-2010) . In Southern rural area, this rate increased from 18.2% to 58.3%. In Northern rural area, the rate increased from 4.3% to 49.5%. More importantly, the prevalence of cesarean delivery on maternal request(CDMR) increased by 34 folds from 0.6% (during1993-1995) to 21.3% (during 2006-2010) in Southern urban area, and by 40 folds from 0.6% to 24.4% in Southern rural area, and by 44 folds from 0.6% to 27.3% in Northern rural area.The proportions of cesarean delivery on maternal request(CDMR) significantly increased in all three regions.

For years, the Chinese Obstetricians have been striving to reduce the cesarean birth rate and improve the medical technologies and services. The medical administrators repeatedly stress the importance of medical indications in clinical daily work. However, these measures did not obtain satisfactory effects, even though financial penalties had been imposed on specific wards and doctors. Facing with a big number of pregnant women strongly requesting for cesarean section without indications, the doctors would be caught in a dilemma when the persuasion is always invalid, and they sometimes would be complained to the political office by the patients. In this context, the high prevalence of cesarean birth rate is not only a medical problem, it is more of a social issue.

How should the doctor do when a pregnant woman request for cesarean delivery without medical indication? In clinical practice, positive interventions, including persuasion and encouragement, could sometimes alter the cesarean decision if the pregnant woman would be willing to trust the doctor. First, the doctor should first be a listener and try to determine pregnant woman the "pain point" of unwilling to take vaginal birth. Some women may have specific concerning factors, such as age, body mass index, accuracy of estimated gestational age, reproductive history, personal values, and cultural context. Second, the health care provider should be an educator in correcting wrong concepts. Pregnant woman should be informed the advantages and disadvantages of delivery modes, including the risks of placenta previa, placenta accreta spectrum, and gravid hysterectomy risks after cesarean section. Third, encouragement is important. In clinical practice, pregnant women may feel anxious when the baby seems large under B-ultrasound scanning. Some fear that vaginal delivery would be too painful to tolerant. Some afraid that laceration of perineum after vaginal delivery will reduce the degree of satisfaction in sexual life, which has been their "shameful secrets". Promoting the popularization of science, encouraging the pregnant women, and saving them from wrong concepts are doctors' responsibilities. Last but not least, the epidural analgesia use during labor could greatly alleviate the pain for pregnant women. Darkness before epidural analgesia is hailing the light at the end of the tunnel. Finally, interventions based on scientific evidence, such as the Robson 10-group classification method could contribute to a reduction in cesarean section rates.As in a multi-center cross-sectional study across 23 provinces in China, they found that cesarean rate was 38.9% in China in 2015–2016 while the reference rate was 28.5% with a modified Robson classification to characterize. The Robson 10-group classification was rarely used in China, because it has not been widely known to most obstetricians. We also appeal for a promotion of Robson classification method to reduce the cesarean birth rate.

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