

Vaginal birth and pelvic floor dysfunction revisited: Can cesarean delivery be protective?

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In 1985, the World Health Organization (WHO) published a seminal report about the ideal rates for caesarean delivery and concluded with the following statement: “There is no justification for any region to have a rate higher than 10–15 %” [1]. As a direct result, several governments have expressed concern about the progressively increasing rates of caesarean births, with potentially negative consequences on maternal and infant health and escalating health-care costs related to this trend. Different factors can explain this increasing rate of caesarean sections (CS). In particular, many women who fear childbirth or possible pelvic floor dysfunctions can request an elective CS; moreover, medicolegal issues influence gynecologist decisions. In many South American countries, the proportion of CS have reached 40 % of all births. In 2006, the CS rate in the USA was 31.1 %. Recent data from European countries also shows rates >30 %. In Italy, >38 % of births are CS deliveries [2]. In the last 30 years, therefore, CS has progressively become the *bete noire* in obstetric practice.

Recently, the WHO changed its previous position on caesarean birth rates because “a population-based recommended caesarean section rate cannot be applied as the ideal rate at the hospital level” [3]. Despite this clear recommendation, the

primary objective of current obstetric practice has remained the same: determination to reduce CS rates based primarily based on the following data:

- A higher maternal mortality rate of cesarean compared with vaginal delivery [4]
- Significant childhood morbidity associated with cesarean births than previously described [5]
- Increased direct and indirect procedure costs

In developed countries, many national health authorities have proposed to limit or even exclude performing the procedure on maternal request in order to further reduce CS rates [2]. In 2010, a cost-effectiveness analysis demonstrated that in the absence of any obstetric indication, there is no clear preferable mode of delivery in women with a singleton pregnancy [6, 7]. It is very interesting that these data were reported by the obstetric community 15 years earlier because 31 % of female obstetricians in one study chose to deliver by elective or planned cesarean [8].

Improved obstetrician education and skills in performing operative vaginal deliveries with forceps or vacuum may decrease the need for CS in the second stage of labor. A conservative approach to the second stage that allows a longer interval of maternal pushing is another possible mechanism. The likely consequences of these obstetric strategies, especially when exaggerated, however, is maternal pelvic floor dysfunction, with a significant adverse impact on quality of life. The philosophy of modern obstetric practice is to produce the “healthiest” baby from the “healthiest” mother. It is mandatory, therefore, to remember here the WHO definition of health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” The prudence of reducing CS rates is a major component of good obstetric practice, as long as this approach does not cause

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maternal morbidity and subsequent worsening of postpartum quality of life [9].

A large number of studies has clearly demonstrated that forceps delivery, vacuum extraction, prolonged second stage of labor, and perineal tears are the most important risk factors for postpartum onset of de novo urinary incontinence, anal incontinence, and sexual dysfunction [10, 11]. Moreover, the management of labor dystocia often requires that women are lying in the traditional supine position. In the second stage of labor, this position has been found to correlate with higher episiotomy rates, which is an independent risk factor for de novo postpartum stress urinary incontinence [12]. Postpartum pelvic floor dysfunction has a detrimental effect on quality of life that is usually permanent.

It is obvious that unnecessary and potentially dangerous CS should be avoided at all costs. Are we confident, however, that this anxiety to reduce caesarean births is improving the quality of life of women? Are we absolutely convinced that women who develop urinary incontinence, anal incontinence, and/or sexual dysfunction after a traumatic vaginal delivery are “healthy” and satisfied with their birth experience? In 1855, Ferdinand AMF von Ritgen (1787–1867) the German obstetrician who described the Ritgen maneuver (delivery of a child’s head by pressure on the perineum while controlling the speed of delivery by pressure with the other hand on the head) wrote: “The complete protection of the perineum has undoubtedly remained a weak spot in our art.” One century ago, Khalil Gibran (1883–1931), famous poet, painter, and philosopher stated that: “Fear of the devil is one way of doubting God.” Perhaps we obstetricians should strive to improve our art of managing vaginal delivery while not being afraid to perform CS, as it is not the devil in obstetric practice. In several women, cesarean delivery is able to prevent postpartum pelvic floor dysfunction and subsequent impairment in quality of life without increasing maternal, neonatal, or infant mortality risks. We should direct our future research endeavors toward earlier detection and better identification of women at risk of developing pelvic floor dysfunction after childbirth in order to counsel pregnant women more appropriately on modes of delivery and

actively involve them in the decision-making process.

Compliance with ethical standards

Conflicts of interest None.

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