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Normal Vs. Cesarean Delivery Ratio - The Main Reasons For Cesarean Delivery

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Abstract – Child delivery is a multi-dimensional process with physical, emotional, social, physiological, cultural, and psychological dimensions. Although cesarean delivery can be a life-saving surgery, this procedure should be performed only when medically indicated, as complications that have adverse consequences for the mortality and morbidity of both the mother and the newborn are well documented in the literature.

The main purpose of this paper was to determine the ratio of normal & cesarean delivery ratio by determining the main reasons for cesarean births in the Regional Hospital of Ferizaj, Kosovo

The study was retrospective, descriptive, conducted at the Regional Hospital of Ferizaj in Kosovo, for a period of three years (2018-2020).

Normal births in January 2018 were 87.30% while in December 2028 this number has decreased to 77.30%. In contrast to this decline, births by cesarean section have increased significantly from 12.60 % in January to 22.68% in December 2018. In 2019, the ratio of normal births compared to cesarean sections has had smaller movements. However, even this year there is a decrease in the number of normal births and an increase in those with cesarean section. In 2020, the number of normal births increased slightly from 75.2% in January to 78.8% in December. In this annual period there has been a decrease in births by cesarean section, registering 24.8% in January and 22.2% in December.

Based on these findings we can conclude that in the last two years of the analyzed period we have a decrease in births by cesarean section and an increase in births by normal ways.

Keywords – Normal Delivery, Cesarian Delivery, Hospital In Ferizaj, Kosovo

I. INTRODUCTION

Cesarean section is commonly used when vaginal delivery puts the health of the mother or baby or their lives at risk.

A small but significant number of women develop complications that can be life threatening for them or their babies. Emergency situations can be stressful and provoke a range of emotional reactions and consequences for everyone involved. Intensive care units should have comprehensive multidisciplinary tools for rapid response to emergencies and subject the patient to cesarean delivery.

Cesarean delivery has been part of the human culture used for centuries but early history remains unclear. The first records refer to the ancient Hindus, Egyptians, Romans and Greek mythology. It is said to have originated from the birth of Julius Caesar. At that time the procedure was carried out when the mother was dying or was dying in an attempt to save the child.

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Today a Cesarean delivery usually occurs when a vaginal birth endangers the health of the mother or baby or their lives, or to remove a dead fetus or with severe malformations. Today we have an increase in the desire of women to choose their own surgery to give birth to their babies.

The first cesarean section was performed by the German gynecologist Adolf KEHRER in 1881. In 1925 the following transverse incision was used to reduce the chance of infection and rupture in subsequent pregnancies.

II. Aim Of The Study

The main purpose of this paper was to determine the ratio of normal & cesarean delivery ratio by determining the main reasons for cesarean births in the Regional Hospital of Ferizaj, Kosovo.

III. Literature Review

Pregnancy is a physiological phenomenon, and its end is associated with pain, fear, anxiety, and even fear of death for mothers. Child delivery is a multi-dimensional process with physical, emotional, social, physiological, cultural, and psychological dimensions. Childbirth can be a critical and sometimes painful experience for women, (Jamidishi M. et al. 2009).

The rate of C-section is one of the indices of health insurance. According to World Health Organization (WHO), C-section rate was reported as 15% in 1985. Based on the reports of WHO in 2009, this rate has significantly increased, worldwide. In the USA, C-section accounts for one in every 10 childbirths; in year 2002, C-section rate increased to 26.1% of all deliveries. Also, in European countries, this rate has been reported as 13-25%. In addition, in Latin American countries such as Brazil, rate of C-section is quite high (16.8 to 40%). C-section is only recommended when the life of the mother or fetus is at risk. However, this method has currently become a way of escaping from labor pain. People have a common belief that cesarean delivery is less painful, safer, and healthier than vaginal delivery.11 In fact, more than half of women voluntarily undergo C-section.12 Individual’s views and attitudes signifcantly influence the choice of delivery. These views are based on different information sources, which are vary in terms of accuracy and reliability.13 Several studies have described a variety of factors for the selection of vaginal delivery. In the study of Black (2005) which was carried out in the UK, one of the most important determinants was the individual’s inclination towards vaginal delivery, which is influenced by several factors including interest in experiencing vaginal delivery, previous positive experiences, lack of anxiety about the safety of mother and baby, faster recovery after delivery, and fear of anesthesi (Zakerihamidi, M. et al. 2015).

Cesarean deliveries are associated with a higher rate of newborn admissions to neonatal intensive care units (NICU), longer hospital stay, and greater use of human resources for assistance. Also, unnecessary C-sections seem to increase the risk of parturient as their inadvertent practice may increase in 3.7 times the chances of maternal death, and approximately 5 times of those of amniotic embolism, along with being related to a higher future incidence of abnormal placental insertion. Despite all these issues mentioned, C-section rates have risen in some countries. Although the ideal and safe rate for cesareans should be around 15–18%, there was an increase from just over 20% in 1996 to almost 33% in 2011 in the United States . In Brazil, the situation is even more critical. Considering both the public and private systems, there was an increase from 40% to nearly 55% in the same period, with the private system accounting for values exceeding 80%.

This means that less value has been delivered since poorer outcomes are associated with a higher cost, ((Negrini et al., 2021).

Cesarian Section is a major surgical procedure and carries health risks for both mothers and infants. Compared with vaginal birth (VB), CS without medical indication is associated with greater chance of maternal mortality, infection, hemorrhage, adhesions, bleeding and lacerations, bleeding in a subsequent pregnancy, extended hospital stay and/or recovery time, reactions to medication, risk of additional surgeries and negative emotional reactions for mothers [8,9,10]. In addition, infants delivered by CS are at higher risk of having breathing problems, respiratory distress, low APGAR score, fetal injury, allergic rhinitis, food allergy, childhood asthma and childhood onset of type1 diabetes compared with those delivered by Vaginal Birth. (Tadevosyan et al., 2019).

In the past several decades, a pattern of rapid increases in cesarean delivery rates has been observed worldwide, and this increase has varied across regions. Although these rates have increased at a slow pace in countries within sub-Saharan Africa, they are increasing at a substantial rate in many other countries. For instance, in the US, the cesarean delivery rate reached 30% in

2006, partly owing to the practice of preventive medicine and the threat of litigation. In European countries, the cesarean delivery rates vary from 52.2% in Cyprus to 14.8% in Iceland, with rates in the 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. Moreover, in Asia, an increase in cesarean delivery rates has been observed in a number of countries, including India, Nepal, China, and Bangladesh. Such a substantial increase in cesarean delivery rates without an indication of benefits for maternal or neonatal health has become a major public health concern. (Bhatia et al., 2020).

Although cesarean delivery can be a life-saving surgery, this procedure should be performed only when medically indicated, as complications that have adverse consequences for the mortality and morbidity of both the mother and the newborn are well documented in the literature. Some of the negative health outcomes in infants born via cesarean delivery include childhood obesity, respiratory disorders, type 1 diabetes, acute lymphoblastic leukemia, impaired cognitive development, higher rates of autism, and an increased risk of neurodevelopmental disorders. Cesarean delivery has been reported to be associated with an approximately 4-fold increase in the risk of maternal death.24 In addition, unnecessary cesarean deliveries may be associated with higher health care costs in many low-income settings (Baskett & McMillen, 1981).

The reasons for the increase rate of cesarian section are multifactorial and not well-understood. Changes in maternal characteristics and professional practice styles, increasing malpractice pressure, as well as economic, organizational, social and cultural factors have all been implicated in this trend [7–10]. Additional concerns and controversies surrounding CS include inequities in the use of the procedure, not only between countries but also within countries and the costs that unnecessary caesarean sections impose on financially stretched health systems, (Betrán AP et al.2016).

There is an increasing use of cesarean delivery based on preference rather than on medical indication. However, the extent to which nonmedically indicated Cesarian delivery benefits or harms child survival remains unclear, (Paixao ES,2021).

IV. Methodolgy

The study was retrospective, descriptive, conducted at the Regional Hospital of Ferizaj in Kosovo, for a period of three years (2018-2020).

The data were taken from the hospital database which were then analyzed and processed in SPSS program to find the frequency and percentage of births performed in this time interval.

V. Results

As can be seen in the figure below, the trend of normal births and those with cesarean section has experienced significant differences during 2018. Normal births in January 2018 were 87.30% while in December 2028 this number has decreased to 77.30%. In contrast to this decline, births by cesarean section have increased significantly from 12.60 % in January to 22.68% in December 2018, (Figure 1).

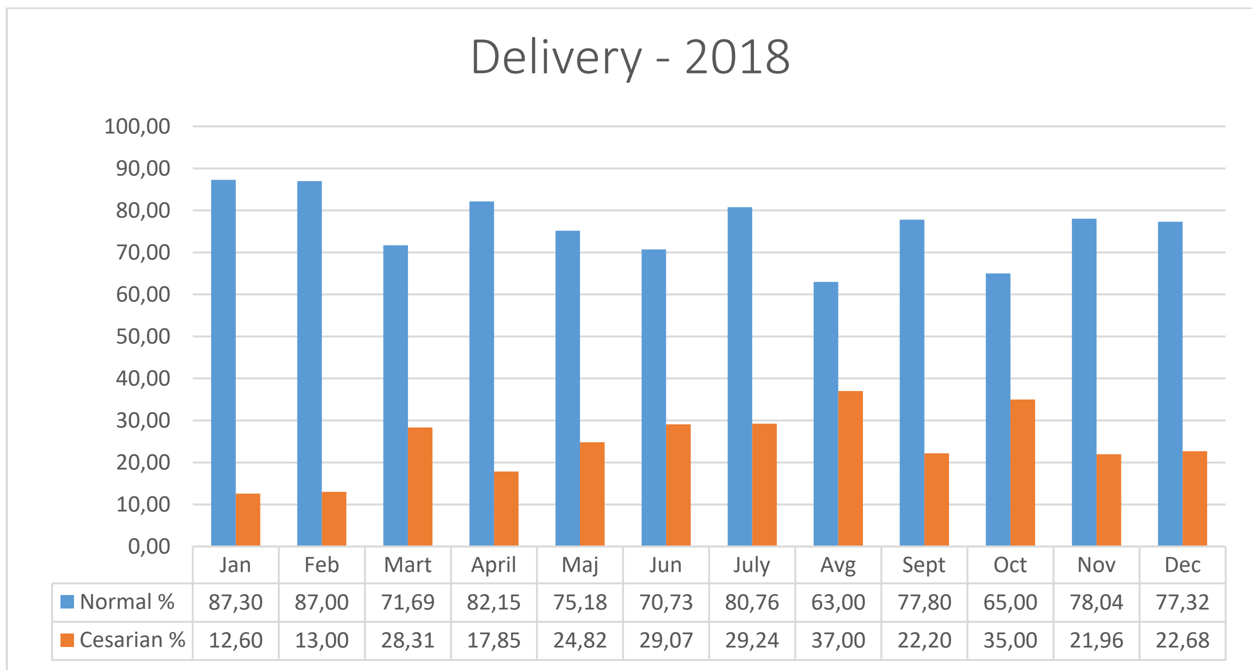

Figure 1. Births in the hospital of Ferizaj, 2018, by month

In 2019, the ratio of normal births compared to cesarean sections has had smaller movements. However, even this year there is a decrease in the number of normal births and an increase in those with cesarean section, but this degree of difference is significantly lower than that of the previous year (Figure 2).

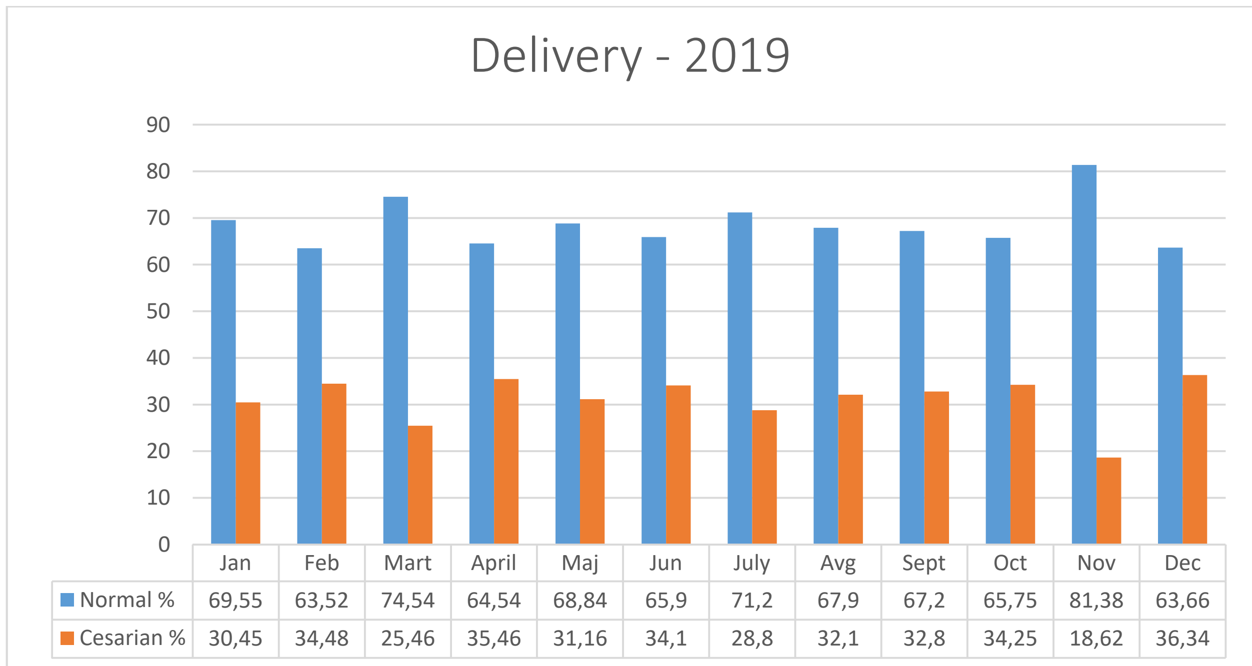

Figure 2. Births in the hospital of Ferizaj, 2019, by month

In 2020, the ratio of normal births to cesarean births is completely different from the previous two years. The number of normal births increased slightly from 75.2% in January to 78.8% in December. In this annual period there has been a decrease in births by cesarean section, registering 24.8% in January and 22.2% in December.

This change in the ratio of normal births to those with cesarean section, in our opinion, has changed due to the situation with the COVID-19 pandemic, due to which access to hospital health services has been limited and therefore both mothers and gynecologists have preferred that as many births as possible be performed in normal way to reduce the possibility of infection as a result of longer hospital stay, (Figure 3).

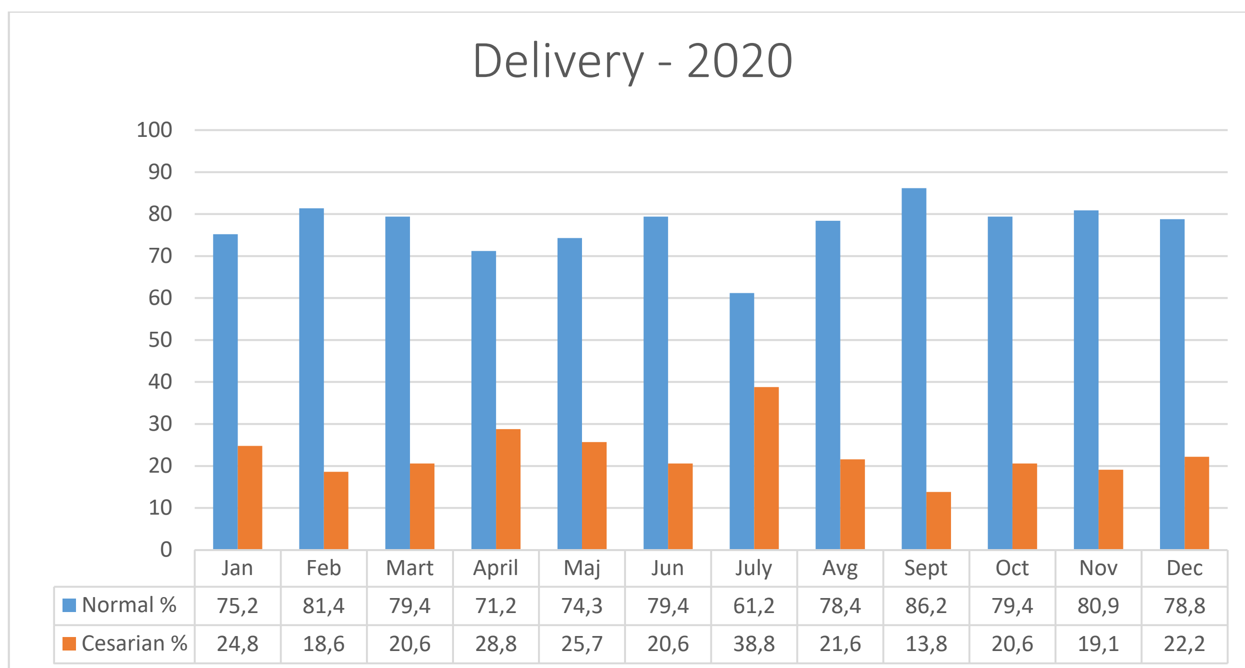

Figure 2. Births in the hospital of Ferizaj, 2020, by month

VI. Conclusions

The rate of natural births compared to cesarean sections has been significantly increased in 2018 in favor of cesarean section births.

In 2019 there was a decrease in births with cesarean section and an increase in normal ones, but again the growth rate was in favor of cesarean births.

In the third year included in our study this ratio has changed significantly and statistically significantly, marking an increase in normal births and a decrease in those with cesarean section.

It remains to be seen how this report of births will be analyzed in the hope that both: women and gynecologists will be aware and as many births as possible will be performed normally.

Cesarean delivery does not bring comfort to the mother, after the intervention, as a result of pain, reduction of the mother's physical ability, in cases of the mother's illness, as well as the later return to normalcy.

Birth by cesarean section by increasing the number of hospital stays also leads to increased hospital costs, both for the mother and the baby. The contact of early pregnant women with the obstetrician and midwife realizes the adequate information and observation of the mother, regarding the advantages and disadvantages of this method of childbirth.

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