



# The place of prenatal visits in pregnancy care: Should we reconsider the current approach?

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## Abstract

A well-conducted prenatal visit remains of paramount importance because it allows the preservation of mother and child health by reducing the rates of morbidity and mortality for them. However, the quality of prenatal visits remains a serious problem in our environment, and a new approach is urgently needed to improve the quality of prenatal visits in our environment.

**Keywords:** Bukavu, current approach, pregnancy, prenatal visits

## Illustration case

We are at the University Clinics of Bukavu, where a 24-year-old parturient with the obstetrical formula G2P2A0D0E2 has just arrived in the maternity ward with lombohypogastric pain from uterine contractions that have been going on for about 4 h. The parturient has no idea when her last menstrual period was, and her intergeneric interval is 22 months. She stated that she received the third dose of the tetanus vaccine, antimalarial chemoprophylaxis with Fansidar (sulfadoxine and pyrimethamine), deworming with mebendazole, and folic acid supplementation during two prenatal consultations. During the two prenatal consultations she had throughout the pregnancy, she did not have any ultrasounds. A cesarean section was performed in the first pregnancy to correct a fetopelvic disproportion, according to the pathological history. The cesarean section performed allowed the extraction of a still-born baby weighing 5000 g with no visible physical malformations. The parturient noticed active fetal movements. An enlarged abdomen with a gravid uterus with a large vertical axis was discovered during the examination. The superior fetal pole was

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Sponsorships or competing interests that may be relevant to content are disclosed at the end of this article.

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Annals of Medicine & Surgery (2023) 85:355–357

Received 22 December 2022; Accepted 25 December 2022

Published online 7 February 2023

<http://dx.doi.org/10.1097/MS9.000000000000160>

## HIGHLIGHTS

- The prenatal visits remain of paramount importance in the monitoring of the pregnancy.
- This commentary testifies that the precariousness of quality pregnancy care can result in stillbirth or polymalformed newborns.
- It insists on the improvement of the quality of pregnancy monitoring in order to avoid any unfortunate outcome of the pregnancy.

poorly perceived on Leopold's maneuvers; the uterine height was 45 cm. The fetal heart rhythm was perceived with distant cardio-fetal sounds ranging from 98 to 102 beats per minute. The contractile regime was evaluated and revealed a frequency of two low-intensity contractions every 10 min. Vaginal touch combined with abdominal palpation noted a median cervix that is softened, 30% effaced, dilated to 3 cm, and with the fetal head unfixed (Hodge 0) with intact membranes. In the delivery room, an emergency antenatal ultrasound revealed a monofetal pregnancy of a female fetus with a biparietal diameter consistent with a 40-week pregnancy. Both cerebral hemispheres are not visualized as well as the cerebellum. The face is well visualized, but the interorbital distance of 15 mm is wider and retrograde. The upper limbs are shorter, as well as the lower limbs. The thorax is funnel-shaped; there are four heart chambers with an abdominal circumference of 331 mm. The placenta is anterofundal grade I with an amniotic index of 45, according to Félan. The diagnosis of labor in its latency phase on polyhydramnios with fetal suffering of origin to be developed, and the hypothesis of polymalformed fetus was made. The parturient was put on oxygen, the infectious biological examinations carried out (blood count, c-reactive protein, and cervicovaginal smear) had returned within the limits of normal, and an emergency cesarean section was indicated for unexplained acute fetal distress. The latter allowed the extraction of a female newborn with an Apgar of 3 at the first minute, 2 at the fifth minute, and 0 at the tenth minute, weighing 3000 g, with an opalescent and abundant amniotic fluid estimated at 5 l and a placenta weighing 547 g. The newborn was received in the operating room by the neonatal team for resuscitation. The first

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Figure 1. Postmortem images of the newborn.

orn in the operating room revealed difficulty in adapting to extrauterine life, with an Apgar of 3 at the first minute, 2 at the fifth minute, and 0 at the tenth minute. The physical examination performed was marked by generalized cyanosis, macrocephaly with a head circumference of 38 cm; a small rib cage with a chest circumference of 28 cm; and a waist of 37.5 cm (Fig. 1). Abdominal bloating as noted with an edematous umbilical cord containing two arteries and one large vein. The abnormalities related to anthropometric parameters, abdominal bloating, and unexplained fetal suffering with difficulty in adapting to extrauterine life, allowed us to evoke the diagnosis of a polymalformation of the newborn. The Apgar of the first minute motivated resuscitation gestures, but these were in vain because the newborn died in the middle of resuscitation, 5 min after the beginning of it.

## Commentary

Antenatal consultation is a critical component of both pregnancy monitoring and neonatal medicine. The practical intent is for a practitioner and a parent to meet prior to the birth of a child in order to contribute to the mother's and newborn's care<sup>[1]</sup>. Prenatal care was identified as a key instrument to reach targets such as reduced child mortality as part of Millennium Development Goals 4 and 5, and continues to be a priority in the Sustainable Development Goals (Goal 3)<sup>[2]</sup>.

Prenatal care of high quality can reduce many risks of death, illness, and disability for both mothers and infants<sup>[3]</sup>. It should be emphasized, particularly in prenatal care, that the evaluation

results may support both the continuation of the strategies and their modification in order to improve the quality of care<sup>[4]</sup>.

Antenatal consultation provides an invaluable opportunity to inform and educate pregnant women on critical health issues such as health promotion, screening, and diagnosis. Pregnancy is a challenging event for a woman, and antenatal consultation serves as an important platform for communicating with and supporting women, families, and communities<sup>[5]</sup>.

Access to medical services such as obstetric sonography and biological exams during pregnancy monitoring should be a key component of health policies in developing countries. Unquestionably, obstetric ultrasonography is an important aspect of antenatal care, which is the foundation of all health care for pregnant women<sup>[3]</sup>. In a systematic review, based on 11 studies (one randomized controlled trial, six retrospective cohorts, and four prospective cohorts) undertaken to examine the use of routine second-trimester ultrasound to detect fetal anomalies, the overall prevalence of fetal anomaly was 2.09%, ranging from 0.76% to 2.45% in individual studies and including major and minor anomalies<sup>[6]</sup>.

In this regard, given the importance of prenatal consultation in pregnancy monitoring for the well-being of the mother and the fetus, the purpose of this commentary is to call on all those involved, each in his or her own area, to strictly adhere to the principles to avoid the occurrence of similar situations.

## Challenges

The discovery of fetal malformations in the delivery room through emergency obstetric ultrasound is a reflection of the poor quality of

pregnancy surveillance. Prenatal care has improved dramatically in low-income and middle-income countries in recent years, but more than half of pregnant women in developing countries still do not receive the minimum of four visits recommended by the WHO in early pregnancy<sup>[7]</sup>. In a study conducted in Rwanda on the quality of antenatal care services, more than half of the nurses (55.5%) with more than 6 years of professional experience had never received training on antenatal care for pregnant women<sup>[5]</sup>. And only 38.5 and 30% of the pregnant women had respectively attended about three prenatal consultation sessions<sup>[5,8]</sup>. Thus, in the interest of preserving maternal-fetal health, it is preferable that these women receive better quality antenatal care in appropriate centers with qualified personnel; forgetting that nurses have a limited role in decision making and need capacity building, so that we continue to see tragic outcomes of some pregnancies<sup>[9]</sup>. During pregnancy monitoring, obstetrical ultrasound is used at various times to confirm a pregnancy, verify multiple pregnancies, determine gestational age, monitor growth, detect fetal anomalies, and diagnose problems with the placenta and amniotic fluid<sup>[10]</sup>. In our study environment, pregnancies are not properly monitored due to the lack of prenatal consultation sessions. Given the socioeconomic precariousness of most pregnant women, the inherent cost of the ultrasound is the limiting factor in their realization of it. In the rare cases where an ultrasound is performed in the third trimester, many women want to know the fetus's gender so that they can prepare the layette.

## Recommendations

Poor pregnancy monitoring quality is the result of a lack of commitment at various levels where efforts should converge in order to preserve maternal-fetal health. As a result, we recommend that the competent authorities in charge of public health, hygiene, and prevention incorporate prenatal consultation into the universal health coverage package by making obstetrical ultrasound a routine and mandatory practice in addition to the systematic biological examinations, and that this consultation be performed by an obstetrician-gynecologist in urban areas and a general practitioner in rural areas assisted by midwives. In the event that the recommendations are updated, the authorities should also provide capacity-building sessions for medical personnel. To properly monitor pregnancy, medical staff must strictly adhere to all applicable provisions, and community relays must regularly raise awareness among all segments of society, particularly women of childbearing age, of the importance of regular pregnancy monitoring as part of the promotion of maternal and child health.

## Conclusion

Quality prenatal care is still an unbreakable guarantee of accurate pregnancy monitoring. To preserve maternal and child health and reduce maternal-infant mortality, the current approach must be revised.

## Ethical approval

Ethical approval has been obtained from the Ethics Committee of the Faculty of Medicine of the Official University of Bukavu, Reference number 208/2022/UOB/FM/EC/MKS.

## Patient consent

Written informed consent was obtained from the patient for the publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

## Sources of funding

None.

## Author contribution

M.C.M.: concept and writing of the paper; K.W.N.L., C.M.P., K.S.P., and O.A.T.: data collection; S.N.D.: writing of the paper; F.B.V. and M.O.F.: supervisor.

## Conflicts of interest disclosure

The authors declare no conflicts of interest.

## Provenance and peer review

Not commissioned, externally peer reviewed.

## Guarantor

M.C. Moise.

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