Case report

First recorded spontaneous quintuplets born in Somalia: A case report

Ahmed Issak Hussein

Obstetrics and Gynecology Department, Mogadishu Somali Turkish Training and Research Hospital, Mogadishu, Somalia

ABSTRACT

Introduction and importance: Quintuplets conceived spontaneously are a rare occurrence. As compared with singleton pregnancies, quintuplets are associated with high rates of obstetric complications and significant perinatal morbidity and mortality. To our knowledge, here we reported the first case of spontaneous quintuplet pregnancy faced by a practicing clinician in an underdeveloped country (Somalia) with a successful outcome.

Case presentation: A 32-year-old woman presented in her third trimester of gestation at 30 weeks feeling pain and uterine contractions.

Clinical findings and investigations: Ultrasound examination showed multiple pregnancies with four alive intra-uterine pregnancies, but quintuplets could not be ruled out. Fetal heart activities were present, and the amniotic fluid was normal in amount.

Interventions and outcome: Extensive preparations made included four sets of ventilators. We did an emergency cesarean section under spinal anesthesia: five alive infants, three boys and two girls delivered in cephalic and breech presentations.

Conclusions: Quintuplet pregnancy is rare but poses relevant clinical problems to both the obstetrician and the neonatologist.

Relevance and impact: The takeaway lesson from this case would be that pregnancy with multiples is considered a high-risk pregnancy; with more complications observed as the number of fetuses increases, their effective follow-up requires early diagnosis with regular monitoring.

Through this case, we would like to highlight the urgent need to focus on the delivery of women's health care services in Somalia, along with the need to recognize the importance of receiving antenatal care in the community so that the burden of thousands of lives that are lost each year could be reduced. This case report has been reported according to the SCARE Criteria (Agha et al., 2020).

1. Introduction

1.1. Background

Multiple pregnancies are universally recognized as pregnancies with a high risk of complications for the mother and the fetus [1]. Assisted Reproductive Technologies have contributed significantly to an increase in the incidence of multiple pregnancies around the world. The risk of perinatal mortality and morbidity is high and often linked to prematurity [1,3].

1.2. Rationale

This case is unique among the reported cases of such a condition because this is the first case to be written from Somalia and one of the very few cases to be reported from the world. To our knowledge, here we reported the first case of spontaneous quintuplet pregnancy faced by a practicing clinician in an underdeveloped country (Somalia) with a successful outcome.

1.3. Guidelines and literature

Pregnancy with multiples is considered a high-risk pregnancy, with more complications observed as the number of fetuses increase. Compared with mothers of twins, mothers of triplets, quadruplets and quintuplets were more likely to be diagnosed with preterm premature rupture of membranes, have excessive bleeding, delivered at less than 29 weeks of gestation, and have one or more infants die. A published the first case of spontaneous quintuplet pregnancy in Africa was published in 1888 in Duffle in present-day Uganda in A. J. Mounteney-Jephson [5]. In the literature, cases of spontaneous quintuplet pregnancies have been reported in India, Pakistan, and Germany [3,6]. Many cases of
quintuplet pregnancies have been obtained after embryo transfer following in vitro fertilization [4,7,9]. This case report has been reported in line with the SCARE Criteria (Agha et al., 2020 [8]).

2. Case presentation

2.1. Patient information

A 32-year-old woman, gravida two, para one with a 12-year-old child alive, presented in her third trimester of gestation at 30 weeks feeling pain and uterine contractions. Physical examination revealed an obese woman with a huge abdomen. She does not know exactly her last menstrual period, and she had no personal history of multiple gestations. She has no history of drug allergies or consumption of ovulation induction drugs and she does not smoke or drink alcohol.

2.2. Clinical findings

Physical examination revealed an obese woman with a huge abdomen. On vaginal examination, the cervix was completely dilated, effaced, and a breech baby was engaging. Her vital signs were normal.

2.3. Diagnostic assessment

Ultrasound examination showed multiple pregnancies with four alive intrauterine pregnancies, but quintuplets could not be ruled out. Fetal heart activities were present, and the amniotic fluid was normal in amount. Lab investigations were normal.

2.4. Intervention

She was hospitalized immediately and counseled regarding an emergency cesarean section for the babies. Both the patient and her husband accepted. Extensive preparations made included four sets of ventilators. We did an emergency cesarean section under spinal anesthesia: five alive infants, three boys and two girls delivered in cephalic and breech presentations. Four of the infants shared a single placenta, and one of them had a separate placenta. Every baby was in separate amniotic sacs, weighing 1.345 g, 1.340 g, 1.180 g, 1.085 g, and 0.990 g. All babies were ventilated immediately after the delivery, and all infants were admitted to the Neonatal Intensive Care Unit (NICU) for monitoring.

Operator: Dr. Ahmed Issak, Obstetrics and Gynecology Specialist at Mogadishu Somali Turkish Training and Research Hospital. He attained his Specialist training at the University of Health Science (SBU) in Istanbul, Turkey, in 2020. The operation was done at Mogadishu Somali Turkish Training and Research Hospital in Mogadishu, Somalia.

2.5. Follow up and outcome

Unfortunately one of the infants died 2 days after delivery, but the rest were doing well, as was also the mother. The patient, however, went into uterine atony that was then managed by uterotonic drugs and blood transfusions. The mother was discharged three days after delivery in good condition. Written informed consent was obtained from the mother and her husband for publication of the study and images.

Four babies went home after spending five weeks in NICU with an average weight of around 2.0 kg (Fig. 1). To our knowledge, this was the first reported case of spontaneous quintuplets delivered in Somalia. It was possible only due to timely referral to a tertiary care center, team with expertise, and liaison between doctors (Obstetrician, Neonatologist, and Anesthetist), besides good NICU care with better infrastructure and technology (Fig. 2).

2.6. Patient perspective

The patient was satisfied with the overall intervention and outcome.

3. Discussion

Quintuplet pregnancies are associated with a high incidence of obstetric complications and significant perinatal morbidity and mortality. Women with multiple pregnancies should be offered extra care during the antenatal period with specific objectives of early diagnosis and timely treatment of complications [1]. Hence, tertiary care management can drastically improve the perinatal outcome. It was heartening to know that all babies were born alive at 30 weeks of gestation, and four did well. Ours was the first case in Somalia to have spontaneously conceived. Pregnancy with multiples is considered a high-risk pregnancy, with more complications observed as the number of fetuses
increase. Compared with mothers of twins, mothers of triplets, quadruplets and quintuplets were more likely to be diagnosed with preterm premature rupture of membranes, have excessive bleeding, delivered at less than 29 weeks of gestation, and have one or more infants die [2]. Their effective follow-up requires early diagnosis with regular monitoring. It is estimated that 60% of triplets are due to fertility treatments, 90% of quadruplets, and 99% of quintuplets are due to fertility treatments [6]. In antenatal care in Somalia, it’s a tragedy that many women don't take proper antenatal care and go to hospitals mostly when complications arise. This is one of the main reasons why the maternal and infant mortality rate in Somalia is among the worst in the world. With an infant mortality rate of currently 65.66/1000 live births and a maternal mortality rate, which has been one of the worst worldwide, has reduced from 732 in 2015 to 692/100000 live births, Somalia’s health indicators continue to be some of the worst in the world [Somali Health and Demographic Survey 2020]. Through this case, we would like to highlight the urgent need to focus on the delivery of women’s health care services in Somalia, along with the need to recognize the importance of receiving antenatal care in the community so that the burden of thousands of lives that are lost each year could be reduced.

4. Conclusion

Quintuplet pregnancy is rare but poses relevant clinical problems to both the obstetrician and the neonatologist. It should be managed with close cooperation between all concerned. Due to the extreme and invariable risk of premature delivery associated with quintuplet pregnancies, early diagnosis and adequate prenatal care at a tertiary medical center are essential.

A multidisciplinary team consisting of Anesthesiologists, Obstetricians, Pediatricians, and Operation theatre staff with additional equipment for resuscitation of mother and babies are required at the time of delivery for the safe and best outcome.

Consent

Written informed consent was obtained from the patient's parent for 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.

Provenance and peer review

Not commissioned, externally peer-reviewed.

Ethical approval

Ethical approval was not needed for writing a case report in our settings.

Funding

The authors received no funding from any individual or institution, and this work is completely voluntary.

Guarantor

Ahmed Issak Hussein.

Research registration number

Not applicable.

CRediT authorship contribution statement

Ahmed Issak Hussein was Involved in study design, data acquisition, drafting the article, revising it critically, and finally approved the manuscript.

Declaration of competing interest

The authors report no conflict of interest of any sort.
References

[1] A. Strauss, B.W. Park, O. Genzel-Boroviczény, A. Schulze, U. Janssen, H. Hepp, Multifetal gestation - maternal and perinatal outcome of 112 pregnancies, Fetal Diagn. Ther. 17 (4) (2002) 209-217.

[2] J.G. Schenker, N. Laufer, D. Weinstein, S. Yarkoni, Quintuplet pregnancies, Eur. J. Obstet. Gynecol. Reprod. Biol. 10 (4) (1980) 257-268.

[3] S. Sharma, N. Terhae, N.N. Singh, L.T. Meetei, P.C. Lalzamluna, A. Sapkota, Quintuplets born to a woman without fertility treatment: a rare case report in regional Institute of Medical Sciences, Manipur, India J. Dent. Med. Sci. 14 (2015) 27-28.

[4] D. Shrestha, B. Thapa, S. Aryal, B.K. Shrestha, K. Panthee, B. Kalakheti, Successful management of quadruplet pregnancy following spontaneous conception: a rare case report, J. Lumbini Med. Coll. 4 (1) (2016) 46-49.

[5] B. Moussa, O. Insa, Y.R. Barnabe, T. Hassane, T.A. Ibrahim, N. Zakari, N. Boubacar, Quintuplet pregnancy: a rare case after clomiphene citrate therapy and review of literature, Open J. Obstet. Gynecol. 9 (10) (2019) 1365.

[6] M. Fatima, P.M. Kasi, R. Rehman, S.N. Baloch, Quintuplets born to a woman without fertility treatment in Pakistan, Fertil. Steril. 90 (5) (2008) 2007-e17.

[7] D.W. Britt, M. Mans, S.T. Risinger, M.I. Evans, Bonding and coping with loss: examining the construction of an intervention for multifetal pregnancy reduction procedures, Fetal Diagn. Ther. 16 (3) (2001) 158-165.

[8] for the SCARE Group, R.A. Agha, T. Franchi, C. Sohrabi, G. Mathew, The SCARE 2020 guideline: updating consensus Surgical Case Report (SCARE) guidelines, Int. J. Surg. 84 (2020) 226-230.

[9] S. Carrara, A. Cavaliere, S. Ermito, A. Dinatale, E.M. Pappalardo, M. Militello, Case report: successful of a spontaneous quadruplet pregnancy, J. Prenat. Med. 3 (1) (2009) 10.