

(CASE REPORT)



Congenital fetal malformations: The challenges of diagnosis and management in a resource-poor nation – the role of ignorance: A case report

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World Journal of Advanced Pharmaceutical and Medical Research, 2024, 06(02), 021–024

Publication history: Received on 01 March 2024; revised on 22 April 2024; accepted on 25 April 2024

Article DOI: <https://doi.org/10.53346/wjapmr.2024.6.2.0034>

Abstract

Regular ante-natal clinic attendance is routine and recommended for every pregnant mother worldwide. Antenatal care services are usually made easily accessible to all pregnant women and offered in most centres within or near communities. This is to encourage all would-be mothers to access the opportunity of being reviewed by trained experts when pregnant. During such visits, necessary routine investigations are carried out and the results are reviewed and acted upon by the midwife/physician. One such investigation is the obstetric ultrasound which should be done at least two times before delivery. This may not always be possible in a poor resource region like ours. Even where feasible, ignorance may militate against its use. So, invariably, many fetal congenital malformations are missed antenatally and diagnosis is only made at birth. Such was the case of Mrs XX. Unfortunately, even after delivery of the malformed baby ignorance still prevailed against proper management of the newborn.

Keywords: Pregnancy; Antenatal care; Obstetric ultrasonography; Congenital malformations; Patient's ignorance

1. Introduction

Routine ante-natal clinic attendance is considered an integral part of health care delivery to the people and every woman is encouraged to attend one when she gets pregnant. Several state governments in the country, having recognised the health impact of antenatal care, have made it a non-fee-paying service thereby encouraging all mothers to attend regularly and derive the benefits.

Regular attendance at well-equipped antenatal clinics will offer pregnant women the opportunity of routine ultrasonographic evaluation of their pregnancies and proper dating, thus providing an opportunity for early detection of congenital malformations and other obstetric complications, if any, amidst other benefits. Where feasible, this practice allows the managing clinician (doctor or midwife) to plan and schedule definitive management which may take place in-utero or after birth if congenital anomalies are detected. In the case of Mrs XX, these were not possible as she did not register for the antenatal clinic due to her ignorance. Even though adequately equipped medical centres manned by trained personnel may not be evenly distributed within the communities due to limited healthcare resources especially the shortage of trained professionals, ignorance played a greater role in the case of Mrs XX. This case report highlights the consequences of patient's ignorance on patient care.

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2. Case report

We present the report of a young couple who presented with their first baby at our hospital, a tertiary hospital located in the Niger Delta region of our nation. The legally married couple achieved pregnancy very early after their marital solemnisation. Unfortunately, while still under the guardianship of a dominant mother-in-law, they never attended any properly registered health care centre but instead resorted to a traditional birth attendant who was not trained in the proper management of a pregnant mother. Meanwhile, this was a high-risk pregnancy, being a primigravida that required a professional to manage. Thus, there were no records of any medical events in this pregnancy, no laboratory investigations, no ultrasound scans done and no administration of routine ante-natal medications. All of these would have been free if she had attended antenatal clinics in any of the government-approved centres which were accessible to her. However, the pregnancy progressed to term and she delivered a live male baby but with a "tail". The baby had a congenital malformation. The family, both maternal and paternal sides were greatly alarmed at what appeared to be a mysterious development to them. All declared loudly that such had never happened in their respective families and questioned why it was happening now. Meanwhile, because of shame and possible stigmatization, the young couple hid the baby from visitors who came to celebrate with them.

But a qualified nurse, who resides in the same neighbourhood with them was consulted, who promptly advised that the baby be taken to the paediatrics department of the nearest tertiary hospital. They accepted the advice and presented the following day, at the children emergency unit of our teaching hospital accompanied by the nurse. After an expert review, it turned out that the baby had a Sacrococcygeal teratoma. The hospital neurosurgical unit was invited. The neurosurgeon reviewed the child and agreed with the provisional diagnosis. All necessary investigations were ordered and done including X-ray of the whole spine, full blood count, serum electrolytes, urea and creatinine. The results of all haematological and clinical chemistry investigations revealed normal values.

After identification of the problem and proper education of the parents, a possible line of management was outlined and explained to the anxious parents who were at this stage open to anything that would ensure that their newborn baby survives and lives a normal life.

Following all these, the parents were counselled on the need for surgery to remove the abnormal growth and that the outcome was usually good when done early. The overtly anxious parents accepted and signed the consent forms for the surgery.

All arrangements had been made, the anaesthetic team had reviewed the case, the operating room staff informed and all were set for the surgery when suddenly out of nowhere, the dominant mother-in-law burst into the scene. In a no-nonsense commanding tone, she insisted that the baby be discharged at once, that it was unheard of that a baby that young would be subjected to a surgical operation. She asserted that the doctors wanted to use her grandchild to experiment and that she had people back home in her village who would take care of the baby in better ways than the guessing doctors who knew probably next to nothing about the culture of her people. She inferred categorically that the baby's problem was an affliction from the supernatural and that only the priests of the supernatural ways could be of any help. Incidentally, the helpless young couple gave in silently, signed and discharged against medical advice and took the baby away. There has been no follow-up since then.

3. Discussion

Sacrococcygeal teratoma is reported to be the most common tumour of newborn babies. It is a tumour that sprouts out from the baby's coccyx and develops in utero before the birth of the baby. It is reported to occur in one (1) out of every 35,000 - 40,000 live births [1].

The tumour is known not to be malignant and therefore not immediately life-threatening but can be life-threatening if left untreated [2].

Teratomas are thought to be the remnants of the developing primitive streaks of the fetus and are not cancerous in over 75% of cases, but may be cancerous in about 12% of cases and the remainder are said to be immature teratomas [3].

This tumour develops in the fetal and neonatal periods of a baby's development and it is the commonest of extragonadal germ cell tumours [4]. More distinctly, they are composed of tissues that are not of origin at the site of location. They are reportedly more common in girls than in boys with a ratio of 4:1 [5,6]. In about 15% of cases, sacrococcygeal

teratomas are associated with other congenital abnormalities such as imperforate anus, spinal bifida, duplicate uterus and duplicate vagina [5]. They may contain teeth, calcium, skin appendages and even neural elements.

However, this condition could have easily been diagnosed by radiological investigations even before the birth of the baby. Applicable imaging modalities include plain X-rays which may show a mass protruding from the baby's pelvic region; ultrasound scanning which may show cystic masses; or CT scan or MRI. Magnetic resonance imaging, if available, is said to be superior to ultrasonography [7-9]. However, CT and MRI are not part of routine antenatal investigations in our region.

Sacrococcygeal teratoma treatment is usually by surgical intervention, and this may even take place intrauterine, where the expertise exists if the tumour is large and causes fetal heart failure (hydrops) [9]. All diagnosed Sacrococcygeal teratoma need surgical removal soon after birth, as many may become cancerous later if surgical resection of the mass is not done [10]. When properly resected, the babies are expected to live a normal life [6].

The benefit of intra-uterine diagnosis by an ultrasound was lost to this couple. The concerted efforts of healthcare personnel to mount the appropriate neurosurgical intervention post-birth suffered a dramatic interruption due to ignorance. A pre-natal diagnosis would have helped prepare them for the challenges and procedures ahead. Thus, the unfortunate discharge against medical advice may have been averted and the baby offered better chances at normal life as would have happened in other climes where extreme ignorance as exhibited by the domineering grandmother is not a barrier.

We therefore recommend that stakeholders especially government at all levels, non-governmental organisations (NGOs) as well as public-spirited affluent Nigerians should help provide more portable ultrasound scanning machines and ensure even distribution across primary healthcare centres in the country, especially those designated as free maternal care centres. This should go along with adequate training of healthcare personnel to enhance proficiency in obstetric ultrasonography as this will help shore up the quality of free maternity services which are becoming increasingly available in the country. Above all, there should be increased health awareness campaigns through the mass media and direct community engagements so that the public can take advantage of the benefits of available facilities.

Compliance with ethical standards

Acknowledgement

We wish to acknowledge the management and staff of the Delta State University Teaching Hospital, Oghara Delta State, Nigeria, especially the Health Information unit for their cooperation and efficiency in providing the needed patient records.

Disclosure of conflict of interest

The authors declare that they do not have any competing interests.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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