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INDUCED MULTIPLE CONGENITAL ANOMALIES (MCAS) IN NEONATES: A CASE REPORT

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ABSTRACT

The case of a 28 year old pregnant female student of a tertiary institution in Ondo State, Nigeria, who presented at the University of Medical Sciences Teaching Hospital, Ondo City, Ondo State, with an ultrasound diagnosis of foetal hydrocephalous. Further clinical examination prompted an emergency lower segment caesarean section and upon delivery, the baby presented with Multiple Congenital Anomalies (MCAs), which included *talipes equinovarus*, omphalocele, median cleft lip and palate, and hydrocephalous. Although several incidences of MCA's have been reported, there existed however, suggestive factors that may account for the MCA case in focus. Factors of interest like her unmarried/studentship status, herbal product usage, and refusal to ingest folic acid medication as appropriate, suggested an induced MCA following a failed attempt to terminate an unwanted pregnancy. The case depicts a growing trend in our population, regarding ill-advised abortion induction among women, despite its dire consequences. It is our recommendation therefore, that healthcare workers saddled with the care of pregnant women and neonates, must embark on a proper but aggressive documentation of the trend, while also enhancing efforts in Reproductive Healthcare Education (RHE).

Key words: Pregnancy, **N**eonates, Herbal concoctions, Reproductive Health, Congenital anomalies

INTRODUCTION

Congenital malformations have been described as defects of morphogenesis of organs or body regions identifiable during the intrauterine life or after birth (Corsello and Giuffrè, 2012). It can be structural, metabolic, behavioural or functional disorders that are present at birth (Adeboye *et al*., 2016).

The importance of presenting the spectrum of various congenital anomalies, epidemiological features of pregnant women with anomalous foetus, foetal and neonatal details, and other associated antenatal complications and mode of delivery have been highlighted by Kanhere *et al*. (2015). But Abbey *et al*. (2016) had expressed concern that the prevalence of major congenital abnormalities in different parts of Nigeria cannot be ascertained on the basis of the available literature, as those available are mainly hospital-based without taking into consideration the general population. This is supported by the statements of Onankpa and Adamu (2014) and Adeboye *et al*. (2016), about the dearth of information on congenital anomalies in some parts of Nigeria, while emphasizing the need to carry out studies to determine the incidence of congenital malformations in Nigeria and possible casual associations.

Nevertheless, the outcome of several recent studies, as reported by Abbey *et al*. (2018), indicates that the prevalence and pattern of congenital abnormalities vary from one region of Nigeria to the other, and it is clear that there are some similarities in the pattern of the abnormalities within the South West, South East, and North Eastern regions of Nigeria, in contrast to the Niger Delta region, where the pattern was distinct; suggesting variations in the aetiological

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factors of birth defects within different regions of Nigeria.

Of greater interest is need for health care workers in developing countries like Nigeria, to realize the fact that a large proportion of pregnant women in such countries are exposed to teratogens, indiscriminate ingestion of drugs not prescribed by the doctor, and the intake of traditional medications (Okoro *et al*., 2018). This scenario is made worse by women attempting secretly and severally, to terminate unwanted pregnancies irrespective of the trimester. Additionally, health policy makers in developing countries are said to be generally unaware of the global trends and the toll of birth defect and associated disabilities, because data documenting the extent of these problems are lacking (Okoro *et al*., 2018).

This case report therefore, is intended to serve as an eye-opener to relevant health care workers, about the growing trend of multiple congenital anomalies (MCAs) linkable to ill-advised abortion induction; especially with herbal concoction ingestion.

CASE DESCRIPTION

The patient is an unbooked 28 years old Nullipara at estimated gestational age of 38 weeks. She is an unmarried undergraduate who presented with labour pains. The pregnancy was neither wanted nor planned. She brought an ultrasound report which revealed hydrocephalus in the foetus. There was no history suggestive of skin rash, febrile illness or exposure to radiation at any time in pregnancy. There was also no history suggestive of chronic illness or chronic use of prescribed medication.

Patient commenced the use of various forms of herbal concoction early in pregnancy for prevention and treatment of perceived ill health, not minding the effect on pregnancy, as pregnancy was not desired. Folic acid was not commenced in the first trimester and alcohol was consumed occasionally throughout pregnancy.

General physical examination revealed a young woman in painful distress, a febrile (Temperature=37^{o}C), anicteric, not dehydrated and no pedal oedema. Abdominal examination revealed a symphysio-fundal height that was compatible with her gestational age and foetal heart rate was 136beats per minute. Cervical os was found to be 2cm dilated, 3cm long and firm.

An assessment of latent phase of abour in a Primigravida with Fetal Hydrocephalus was made. A repeat ultrasound at our centre further established the diagnosis of Hydrocephalus. She was then counselled for abdominal delivery. Following abdominal delivery, a live male neonate with APGAR score 5in 1 minute and 7 in 10 minutes was delivered. The baby however, was noticed to have mulptiple gross abnormalities namely; bilateral congenital talipes equinovarus, omphalocoele, median cleft lip and palate, and hydrocephalus.

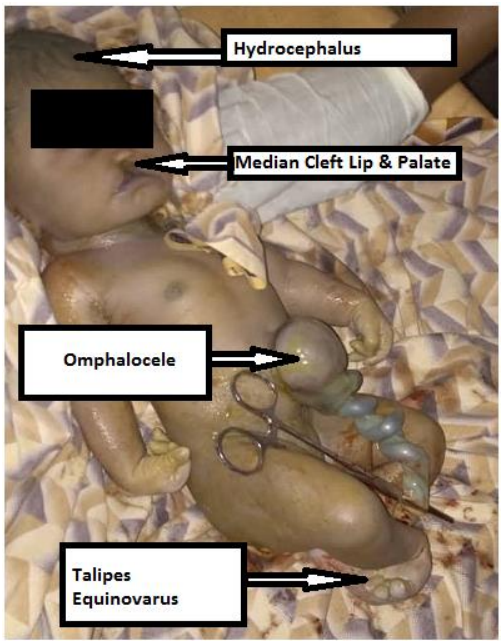

Figure 1: Neonate with Multiple Congenital Anomalies (MCAs)

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DISCUSSION

Although several incidences of MCA in neonates have been reported, there existed the influence of certain deducible factors that may possibly account for the MCA case in focus. These factors of concern like pointers on age, marital status, occupational status as student, and herbal product usage, as well as the noncompliance to ingesting folic acid medication as appropriate, were suggestive of the fact that the MCA case in focus may have been induced.

The assertion above on an induced MCA case, can be pushed further by suggesting that the pregnancy must have been unwanted due to the obvious fact that the patient is a young undergraduate student of a higher institution, and seemingly not legally married to the supposed Father of the neonate; both of which might explain the possible and deducible efforts made by the patient to secretly terminate it. In literature of course, are evidence that the prevalence of unintended pregnancy in Nigeria is high (Lamina, 2015), with resultant negative consequences following illegal attempts to terminate it (Faundes and Hardy, 1997; Hess, 2007; Ahman, 2004; Ahman and Shah, 2007; Orji *et al*., 2009; Abiodun and Balogu, 2009; Cadmus and Owoaje, 2011; Emechebe *et al*., 2016; Ustá, 2016).Oftentimes, the pressure to terminate pregnancies arise from the fear of parents' or guardian's retribution or attempts by the pregnant woman to preserve self-respect, family name, societal relevance, and religious status, amongst others (Olukoya, 2004; Plummer *et al*., 2008; Lim *et al*., 2012; Gbagbo *et al*., 2015; Kabiru *et al*., 2016; Frederico *et al*., 2018).

On the other hand, the admittance by the patient to having ingested herbal concoctions similarly implied a wilful attempt by the her to terminate the pregnancy. This assertion is supported by several existing evidence in literature about the indiscriminate use of pills and herbal concoctions as contraceptives, or in outright attempts to terminate unwanted pregnancies (Williamson *et al*., 1996; Ravichandran *et al*., 1998; Kumar and Mishra, 2010; Pradhan *et al*., 2012). Some of these attempts have led to complications, still births, congenital anomalies and maternal deaths (Lamb, 2002; Schwerdtfeger and Shreffler, 2009; Bercaw, 2010; Adams, 2011; Rasch *et al*., 2014; Shirani *et al*., 2016).

Also, the non-ingestion of folic acid medication, until the last trimester, is indicative of one of the possible causes of the observed malformations, considering the poor nutritive habits of typical female students in tertiary institutions in Nigeria. These indicates that the possible factors accounting for the observed MCA case may not be farfetched after all, as the deducible facts suggests a wilful but failed attempt by the patient to terminate the pregnancy. Usually, the methods adapted by women to terminate pregnancies can be linked to experience/exposure and suggestions by peers/friends and parents/relatives. It might also be done by the instinctive ingestion of any given substance with known harmful properties, precisely in an experimental fashion, to achieve the ultimate desired goal of triggering a miscarriage and/or termination of the unwanted pregnancy.

Furthermore, the use of herbal concoctions during the period of pregnancy is in itself, a source of concern, judging by the possible teratogenc effects of the contained active ingredients. In fact, available literature have shown that certain herbal concoctions contain substances not suitable for pregnant women and in some established instances, are so indicated on the labels (Lamb, 2002; Schwerdtfeger and Shreffler, 2009; Bercaw, 2010; Adams, 2011; Rasch *et al*., 2014; Shirani *et al*., 2016). Unfortunately, some ladies bent on terminating their unwanted pregnancies, rather consider as positive, the negative effects of the concoctions on pregnancy, that the effects on their health and well being, as long as it satisfies their quest to achieve the afore-stated goal.

That such women are beclouded by their focused goal, not minding the possible short-term and long-term consequences of their actions, is indeed unfortunate, as ill-advised abortion attempts have

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resulted in clinical complications of various kinds, including organ damage, congenital malformations, and even death (Faundes and Hardy, 1997; Hess, 2007; Ahman, 2004, Ahman and Shah, 2007; Orji *et al*., 2009; Abiodun and Balogu, 2009; Cadmus and Owoaje, 2011; Emechebe *et al*., 2016; Ustá, 2016).

Although this case in focus might not be the first of its kind to be reported, it is however, a typical example of a growing trend in our population, regarding ill-advised abortion induction, despite its dire consequences. It is our recommendation that health care givers saddled with the care of pregnant women and neonates, must embark on a proper but aggressive documentations of the trend where ever and when ever observed, and across all levels of our health care system, in order to effectively assess the trend, while also enhancing efforts in Reproductive Healthcare Education.

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