Amelia in Twin Pregnancy

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Abstract: Limb bud first appears during the third week of gestation with the upper limb buds appearing a few days before the lower limb buds. Complete absence of one or more limbs, called Amelia, occurs prior to the eighth week of gestation. We report a case of Amelia in a twin gestation.

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Key words: Amelia, tetramelia, twin pregnancy

Introduction

Tetra-amelia is a rare malformation that may be associated with other anomalies and is usually inherited in as autosomal recessive pattern. No mutation was identified upon molecular analysis of WNT3, HS6ST1, and HS6ST3. (1)

Case Report

The mother was a 30-year-old, gravida 2, para1, female. Her first gestation was a healthy girl. The mother had multiple ultrasonograms throughout pregnancy which confirmed the twin gestation, but they did not show any fetal defects or placental abnormalities. There was no history of trauma, drug or cigarette exposure. She did not have any disease. She was given birth by cesarean delivery at 34 weeks gestation. Twin A was a male weighing 2600g with Apgar scores of 9-10. He was in a good condition.

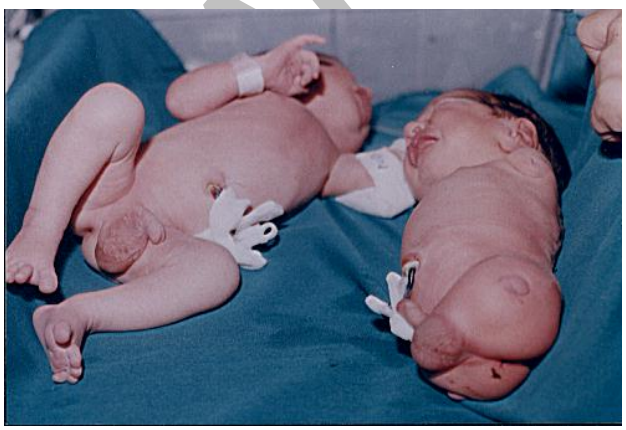

Figure 1.

Twin B was a male who weighed 1600g with Apgar scores of 9-10. He was noted at birth to have no arms and feet. Except for Amelia, he did not have any other significant problems. Echocardiogram and cranial sonography were normal. Examination of the placenta revealed a monochorionic, diamniotic placenta.

Discussion

The incidence of monozygotic twinning is 1 in 250 births and is independent of race, heredity, age, and parity (2). It is well-established that congenital anomalies occur more frequently in twin gestations (2). Momochorionic twins are at further risk for perinatal complications (3). Amelia is one of these complications and is characterized by complete absence of skeletal parts of the upper or lower limbs with no bony structure distal to the defect (1). The occurrence of limb reduction and Amelia with or without facial defect are very rare. Well-known examples include fetal thalidomide syndrome, Robert-SC phocomelia syndrome, caudal regression syndrome, TAR syndrome, heart-hand syndrome, femoral hypoplasia-unusual facies syndrome, Baller-Gerold syndrome, Herrman-Pallister-Opitz syndrome, and amniotic band (4).

All of them contain more severe anomalies, but in our case, the male twin had only limb defects, his family history was negative and his mother had not taken any drugs. Also, there was no evidence of amniotic bands which might have contributed to the limb defect. Therefore, in spite of most other cases of Amelia, we could not find any etiology for his defect.

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