Abstract

Congenital cervical teratoma is an extremely rare abnormality. Neonatal teratomas occur in about 1:20 000-40 000 live births and only 5% of them are located in the region of the neck. Although mostly benign, they are associated with a high mortality rate due to respiratory distress and require immediate surgical excision. Prenatal sonography is good at identifying the presence of tumors. Early diagnosis of a cervical teratoma can result in various obstetric measures, as far as abortion in the event of a hopeless prognosis. We present a congenital cervical teratoma case diagnosed in the first trimester to discuss prenatal diagnosis, perinatal and neonatal outcomes and the management strategies.

Keywords: congenital, cervical teratoma, pregnancy, management

Introduction

Teratomas are tumors containing components of all three embryological germ layers. The pathogenesis of these tumors is unclear, but many believe they arise when germ cells escape the developmental control of primary organizers. Congenital teratomas occur in about 1:20 000-40 000 live births and only 5% of them are located in the region of the neck (1).

Prenatal sonography is good at identifying the presence of tumors. It is an essential and reliable method to detect cervicofacial tumors in utero. Because of its ability to characterize the composition of teratomas, as well as the relations of the mass to the large vessels of the neck, ultrasound is the main imaging method for diagnosis. Cervical teratomas are usually large and may lead to difficult labor and problems with the airway patency after birth. The prognosis is good if there is no respiratory compromise. Untreated cervical teratomas are associated with a mortality rate of 80% to almost 100%. On the other hand, it is also possible that the increasing rates of prenatally detected cervical teratomas are responsible for decreasing survival rates, as not all parents want to continue a high-risk pregnancy.

Case Report

A 24-year-old, gravida 2, para 1, pregnant woman referred to our hospital for prenatal control. According to her last menstrual period she was at 16 weeks gestation. The obstetric sonography revealed a 20x17 mm diameter mass on the anterior cervical region. The mass was composed of cystic and solid portions, also containing blood vessels. No other associated fetal anomaly was identified and the karyotype analysis showed a normal (46 XY) fetal karyotype.

After a follow-up period of four weeks, the mass reached to 66x47 mm in diameter and the development of a severe polyhydramnios was recorded (Figure 1). As the tumor showed rapid growth over this time period, the couple was counseled in a nondirective manner about the contingent agg-
ramnios, secondary to the inability of the fetus to swallow

cervical teratomas are associated with maternal polyhy-
dy and mortality. Fetuses have a much lower survival
to neonates, 23% versus 85%. Ten percent of the
rate than neonates, 23% versus 85%. Ten percent of the
Survival with cervical teratoma depends on the size of the
tumor and extent of the involved tissues, with respiratory
compromise being the main cause of subsequent morbid-
dity. Survival rates of cervical teratomas are generally poor
because of the possibility that the endotracheal intubation could fail. If the airway is secured and the tumor
remains in the immediate postnatal period, the outcome is excellent with reported survival rates as high as
85% (8,9). The most dangerous immediate complication
at birth is airway obstruction and subsequent hypoxic
injury to the newborn. They are usually benign and sur-
gery can be curative.

Malignant change is extremely rare in the head and neck
region. The outcome for patients with malignant elements
treated with surgery and/or radiotherapy is generally poor.
Currently, there are no definite chemotherapy guidelines
for neonates with cervical teratomas. Azizkhan (10) re-
commended chemotherapy for only infants with dissemi-
nated metastases and those who have invasive tumors and
residual tumor after resection. Long-term follow-up with
imaging and α-fetoprotein determinations are additional
recommendations.

In conclusion although congenital cervical teratomas are
extremely rare neoplasms, its location might compromise
the fetal physiology and might lead to fetal or neonatal de-
ath. Accurate prenatal diagnosis is crucial for treatment
strategies, and the pregnant should be forwarded to tertiary
obstetric units where a multidisciplinary team is available
for appropriate care of the fetus and the neonate during and
after delivery.
References


