TWIN TO TWIN TRANSFUSION SYNDROME
– CLINICAL CASE –

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Abstract
The twin to twin transfusion syndrome is a rare condition caused by intrauterine blood transfusion, from one fetus (donor) to another child (acceptor), through placental vascular anastomoses.

The clinical case described is a rare perinatal pathology suspected in a woman with a multiple pregnancy monochorionic the fundal height increases rapidly (within 2-3 weeks), due to increased amount of amniotic fluid.

Twin-to-twin transfusion syndrome is a rare perinatal affecting monozygotic twins (twins, true”) that come from a twin pregnancy monochorionic; twins present has only one survivor, a male child, eutrophic, gestational age of 37 weeks. The twin II (female) is dead in utero and upon extraction by cesarean advanced signs of maceration.

The difference in weight extraction caesarean design of products is high (W₁ = 3230 g, W₂ = 1100 g).

Key words: twin to twin transfusion syndrome, monochorionic, eutrophic

Introduction
The twin to twin transfusion syndrome, also called the feto-fetal transfusion syndrome is a rare condition caused by intrauterine blood transfusion, from one fetus (donor) to another child (acceptor), through placental vascular anastomoses (figure 1).

This syndrome is, along with the birth of conjoined twins, one of two twin pregnancy powerful complications; appears monochorionic monozygotic twin pregnancies (twins „true”), the communication between placental blood vessels common placental vascular anastomoses exist.

Purpose
The clinical case described is a rare perinatal pathology suspected in a woman with a multiple pregnancy monochorionic the fundal height increases rapidly (within 2-3 weeks), due to increased amount of amniotic fluid.

Material and method
ML, aged 42 years, a woman in the town of S., Timiș county, is hospitalized urgently on University Clinic of Obstetrics and Gynecology "Bega", being immediately sent emergency a Specialty Outpatient Obstetrics and Gynecology.

The diagnosis on admission: Gesta V Para V, twin pregnancy, 37 weeks.

A living child, the second child stopped evolving (antepartum stillbirth).

The first fetus in breech (live), the second in alignment cross (dead).

Figure 1. Twin-to-twin transfusion syndrome (Copy from tttsfoundation.org).

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Outdoor eutocic. The pregnant with high obstetrical risk by:
1. The twin to twin transfusion-transfusion syndrome with an antepartum stillbirth;
2. The great multiparas.
From history remember: household lives in rural areas, do not drink alcohol, coffee, tobacco; submit exercise, working in agriculture.
From history and obstetric: patient has 4 birth naturally (1 girl and 3 boys: 1993, 1997, 2003, 2009), no abortion, no other clinical or surgical pathology.
Load current was tracked in the Ambulatory Specialty Obstetrics and Gynecology and the doctor.
The task was taken out at 8 weeks of gestation, fetal movements appear first 14 weeks of gestation, and BCF (heartbeat) were rhythmic, regular.
Conducted analysis of the Resin load current: IO Rh + blood group, normotensive intrapartum added 15 Kg weight without bleeding during pregnancy, vitamin therapy and prophylaxis performed anemia and rickets Deficiency.
The remaining laboratory parameters within normal limits.
Note the appearance gemelarității: monochorionic diamniotic task.

The pregnancy has not conducted regular checks of pregnancy; last control before hospital admission was 30 weeks gestational age. At that time, clinical and obstetrical ultrasound pregnancy was evolving
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with both live fetuses, the normal amount of amniotic fluid, fetal active movements present ultrasound both fetuses weighing 1160 ± 350 g, 1250 ± 365 g.
It presents the gestational age of 37 weeks at a routine ultrasound when laying off the development of one of the fetuses.
Note, that the patient could not relate subjective perception of loss of fetal active movements of one of the fetuses.
After consultation (24/03/2014), the patient is sent to the emergency and is admitted to Maternity "Bega" of Timisoara.
Laboratory investigations were within normal parameters, normotensive patients with metrorrhagia absent, with the onset of labor.
The route fetal cardiotocography live normal parameters with an index CTG note 9 (nine) (figure 2), fetus stopped Indices CTG note 0 (zero).

The obstetric ultrasound showed the following data:
The prince living in alignment one longitudinal breech decomplete how buttocks, back right fetal, amniotic fluid in normal amounts (BPD = 89.1 mm corresponding to 37 weeks, ± 9 2, LF = 68.9 mm corresponding to 37 weeks, ± 1 9 days, AC = 154 mm corresponding to 36 weeks, ± 5 days = 3122 ± 377 g estimates g;
The prince 2 stopped evolving (died antepartum) in transverse alignment with the left flank maternal fetal pelvis, astatic, absent fetal movements ultrasound, ultrasound absent fetal breathing movements (Manning Score = 0), the minimum amount of amniotic fluid, blood flow absent vessels of the umbilical cord with a weight estimated at 1250 ± 355 g = g.
Deciding termination of pregnancy by cesarean protective purpose for living fetus and to avoid the possibility of obstetrical trauma in breech birth. Born lead in the same day (03/24/2014), the first live fetus in breech male, 3230 g. IA = 9:01 of the second fetus female, 1100 g, IA = 0 extracted from transverse alignment. Note the single
placenta - twin pregnancy diamniotic monochorionic - not identified retroplacentar hematoma or placenta praevia or accretion / wrinkle (figure 3).

Histopathology reveals the placenta: placental disc 20/15 / 3.5 cm, showing the two bags separated by September 1 amniotic common umbilical cords and two lengths of 11, 5 cm, 16.5 cm, respectively, both have three lumens vascular (figure 4).

Umbilical cords and fetal membranes are no pathological changes; placental fragments with mature villi with edema and extravasated hematic intervillozitar space; present seals of fibrinoid alteration and dystrophic microcalcifications.

Dead antepartum fetal necropsy revealed: stillborn female in advanced maceration with skin sfacelate who blistered the large flaps (figure 5); G = 1100 g, L = 47 cm, PC = 27 cm, PT = 26 cm.

No visible defects in the external examination. The internal organs are in an advanced stage of maceration and autolysis.

The dimensions of the internal organs are: heart = 3/3 / 1.5 cm; liver = 6/3 / 1.5 cm; Spleen = 2/2 / 0.5 cm; kidney and adrenal = 4 / 1.5 / 1.2 cm; thymus = 2/2 / 0.3 cm; semiliquid consistency brain.

At birth, the first newborn male presented good general condition, acrocyanosis, APGAR = 9-1 minutes for 10-5 minutes, breathing spontaneously (figure 6); desobstruction upper respiratory tract; cardiopulmonary stetacustic: heart sounds clear, well beaten, HR = 120 b / m, with superimposed cardiac murmurs, respiratory ampliations symmetric, normal vesicular murmur present bilaterally, FR = 50 b / m; the cord thick, white, shiny, pearly.

The normal tone and the reactivity are present spontaneously. W = 3230g, L = 50cm, HC = TC = 35cm and 34cm. Twin II: fetal death in utero (in the womb death is defined as a task „stop development after 12 weeks of amenorrhea”), antepartum late death, around week 35 of gestation.

The duration of fetal retention range is 2 weeks.
The evolution of neonatology department: During hospitalization, the infant (survivor) had moderately icteric skin discretion of pale background. We have carried out laboratory. Phototherapy has been carried out. The evolution was favorable (figure 7).

**Laboratory investigations:**

Laboratory tests: blood count at 24 h of life indicates the presence of neonatal anemia (Hb = 11.3 g/l, Ht = 33.1%), Rh positive blood group O; Astrup: normal; Biochemistry: hyperbilirubinemia (T B= 5.4 mg/l, DB = 0.7 mg/l); mild hypoalbuminemia, hypoproteinemia slight increased LDH. Blood culture is sterile; vernix culture: sterile.

Ultrasound transfontanel: mild hypoxic ischemic encephalopathy.

Echocardiography: Foramen ovale.

Exam objective: good general condition, skin moderate jaundice, balanced cardio-respiratory, oral cavity of normal appearance, abdomen elastic, soft, allow palpation, normal stool. Liver palpable 2 cm below the costal margin. Spleen in physiological limits. Archaic reflexes normally present bilaterally symmetrical. Pulse oximetry: SO2 = 98-99% (under O2 free), HR = 137-140 b/min, AP = 59/33 mmHg, MAP = 41 mmHg, Wa = 3200 g.

**Conclusions**

1. Twin-to-twin transfusion syndrome is a rare perinatal affecting monozygotic twins (twins, true") that come from a twin pregnancy monochorionic; 2. Twins present has only one survivor, a male child, eutrophic, gestational age of 37 weeks; 3. The twin II (female) is dead in utero and upon extraction by cesarean advanced signs of maceration; 4. The difference in weight extraction caesarean design of products is high (W = 3230 g, W = 1100g).

**References**


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