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## "Acardius Anceps" Foetus

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## CASE REPORT

# "Acardius Anceps" Foetus

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**Abstract:**

The authors described a case of acardius anceps foetus in a 35 year-old mother with no pathologies. The echographic exams performed during the course of the pregnancy identified a pregnancy with foetus with remarkable regressive alterations. At the 36th week, a Caesarean section was performed resulting in the delivery male baby weighting 3,000g, 21cm long and with remarkable alterations.

**Key words:** acardio anceps fetus

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**Introduction**

In agreement with Napolitani [1], we distinguish four types of "acardius" foetus:

1. "acardius acephalus" with partial development of the trunk and an absence of the cephalic portion.
2. "acardius anceps" with partial development of the trunk and the cephalic portion.
3. "acardius acormus" with development of the head and absence of the trunk
4. "acardius amorphus" with no head and no trunk.

The etiology is controversial: this rare malformation which is always found in monozygotic, twin pregnancy, with a frequency of 1:32,000 [2], appears to be due to an insufficient development of the arterial circle of the parasitic twin, whilst the other, with a normal placental circulation, will develop normally and usually without any apparent malformations; (in a case reported by Pavone et al. [3] the normal twin was affected by anencephaly).

**Case Report**

We 35 year-old mother with no signification pathologies in her family history married with a

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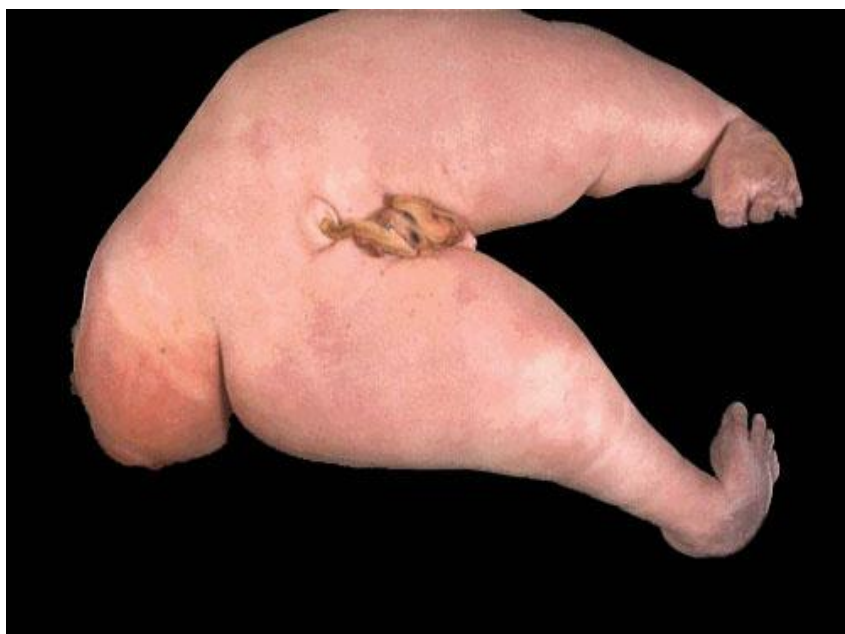
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30 year-old man with no apparent pathologies and consanguinity. The echographic exams performed during the course of the pregnancy identified a pregnancy with foetus with remarkable regressive alterations. At the 36th week, a Caesarean section was performed resulting in the delivery male baby weighting 3,000g, 21cm long and with remarkable alterations. The latter was of a roundish shape, with non-developed eyes, nose, mouth and lower limbs. The penis was present but the testicles were missing.

During the autopsy, non-developed lungs and a circulatory system limited to the superficial layers of the body were found, together with no brain and no heart. The placenta weighted 900g and measured 32cmx34cm. (figure 1).



**Figure 1.** Acardius Anceps Fetus

### Discussion

The etiology of such a rare condition has been discussed for years, however, its occurrence in a monozygotic, twin pregnancy with one of the fetuses being normal excludes acquired or congenital genetic defects. Moreover, the presence, as in our case, of a venovenous anastomosis between the two different vascular beds, confirms a dysmorphic pathogenesis in the vascular supply of the two fetuses, in which one receives blood not from the placenta but from the uterine vein of the twin, thus justifying the term "parasite".

This pathologic circumstance urges us to do some anatomico-legal reflections on the actual birth of the parasite. In fact, if for the birth of a baby we consider conception, we can consider the baby conceived rather than born, but if we consider the embryogenesis with the formation of the organs essential for life, namely the heart and the brain, we cannot say that the acardiac, acephalic twin was ever born. Hence, it all comes down to the legislator, who should take into account all the medico-legal implications which can occur, to allocate civil status to someone who was never born.

### REFERENCES

1. Napolitani FD, Schreiber I. The acardiac monster. A review of the world literature and presentation of 2 cases. *Am. J. Obstet. Gynecol.* 1960; 80:582-589.
2. Warkany J. Congenital malformation. *Year Book of Medical Pathology.* Chicago. 1981; 473-474.
3. Pavone L, Laurence KM, Mattina T, Nuciforo G, Mollica F. *Acta Genet. Med. Gemello* 1985;34: 89.