

Authors: Gutierrez S; Arbio S.; Senyk G; Garcia D.; Nemer C.; Baumberger V.; Falcone V.; Poncelas M.; Astudillo A.; Cannizzaro C.

Pediatric Hospital "Prof. Dr. Juan P. Garrahan". Buenos Aires, Argentina

Introduction: The presentation of conjoined twins is an extraordinary event, of uncertain etiology and high mortality. In survivors the anatomical and functional characteristics of the attachment sites determine the possibilities of separation and future disabilities.

Objective: To report the experience in the management of 20 pairs of conjoined twins followed within the framework of the Fetal Diagnosis and Treatment Program of Dr. J.P Garrahan Hospital.

Materials and methods: Descriptive, retrospective study of a cohort of pregnancies complicated by conjoined twins attended between 2008 – 2022 in our program.

Results: There were 20 pairs of conjoined twins. Median gestational age (GA) at diagnosis was 19 weeks (7-32). 13 pairs were not viable and the pregnancy was terminated. 7 pairs (35%) were viable, in 2 cases lost to follow-up, 5 pairs were delivered by caesarean section and admitted for treatment to Hospital J.P.Garrahan Pediatric Hospital. GA at birth was 33 weeks (27-36). The average weight of the twins was 3350g (1945-4230). 2 were thoracocephalopagus, 1 omphaloischioepagus parapagus, 1 pigopagus and 1 omphalopagus, of which the fetal death of a co-twin occurred at 18 weeks of GA, so a total of 9 conjoined twins were born alive. In all cases, US, echocardiogram, and magnetic resonance imaging (MRI) were performed.

The separation of 4 pairs was possible during the first year of life with varying degrees of sequelae.



2 thoracocephalopagus
1 omphaloischioepagus
parapagus
1 pigopagus
1 omphalopagus



Variable	Results
Median gestational age (GA) at diagnosis	19 weeks (7 – 32)
Gestational age (GA) at birth	33 weeks (27 – 33)
Average weight	3350 gr (1945 – 4230)
Average live months at separation time	6,6 months (1 – 13)

Conclusions: In this group of patients the rate of early prenatal diagnosis was low (16% of cases). Anatomy, fusion site and associated abnormalities were evaluated. 35% was viable. The fusion of hearts with shared structures and the associated anomalies were decisive. The presence of other structures shared (single hepatic hilum, large surface area of the wall and integuments, etc.) was essential to consider separability. The timely choice of treatment and the surgical separation planning is a challenge for specialists. Multidisciplinary teams are required in the comprehensive maternal-feto-neonatal approach to these cases.