

Workshop on Twin Pregnancy
Aberdeen: April 11–12, 1979



Session III

Management of Twin Pregnancy



Foetal Twin Ultrasound Biometry

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Biparietal diameter growth differs considerably in the twin gestation compared to the singleton gestation; thus the use of a specific standard is recommended. A shift toward lower values is noticed in monochorial twins. In the case of the abdominal diameter growth, instead, no significant difference is found between twins and singletons.

Key words: Twin fetal growth, Biparietal diameter, Abdominal diameter, Birthweight, Placentation

INTRODUCTION

In a former work [2], we had shown that the twin biparietal diameter (BPD) growth throughout gestation differs consistently from that of singletons. We had stressed the point that the use of singleton standards would lead to an overestimation of the twins' intra-uterine growth retardation, and suggested that only specific charts be applied to twins. In this report, we extend the analysis of the relationships between cephalic growth, birthweight, and placentation, and we present our chart of abdominal diameter growth in twin pregnancy.

PATIENTS AND METHODS

BPD charts. The population and methodology of this study have already been described elsewhere [2].

Abdominal diameter charts. This study involves 119 twin pregnancies, each followed at a rate of one echography every month, from twin diagnosis till term. A total of 902 measurements were performed, between 20 and 41 weeks, on Aloka scanners, using the combined A and B scan technique.

Birthweight charts. Twins were divided into normal (NBW) and low birthweight (LBW) babies according to specific norms based on a sample of 1049 pregnancies [1].

RESULTS

BPD growth. Retrospectively, and according to twin norms, the population of our BPD growth study (184 twin pregnancies) includes 87.1% of NBW and 12.8% of LBW infants. BPD measurements are within the norm between 28 and 40 weeks in 89% of NBW twins, and above the 50th percentile in 61%. In LBW twins, however, 26% of the measurements

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are clearly below the norm and 45% are between the 10th and the 50th percentile. BPD values do not appear to be influenced by zygosity. However, when monochorial pregnancies are separated from all MZ pregnancies, a shift of BPD values towards lower ranges is noticed (Table).

Abdominal diameter growth. As shown by the Figure, no significant difference is found in abdominal diameter growth between 20 and 40 weeks in singleton vs twin pregnancies.

TABLE. Twin Placentation and Biparietal Diameter

BPD value	All MZ pairs (n = 138)	Monochorial pairs (n = 118)
≤ 10th percentile (twins)	8.35%	9.59%
10th–50th percentile (twins)	30.56%	33.96%
≥ 50th percentile (twins)	61.09%	56.45%

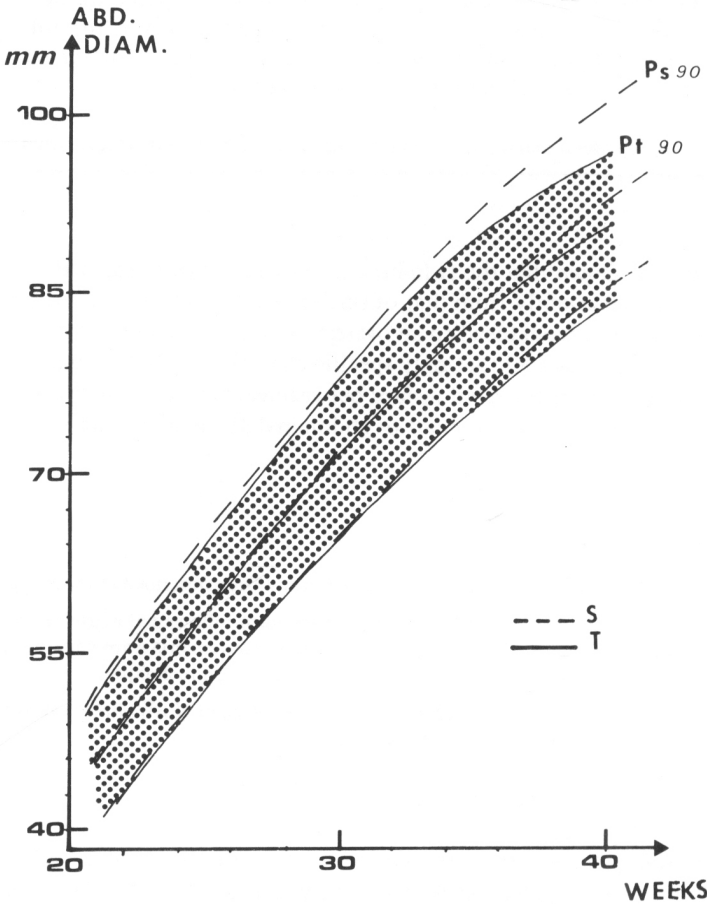


Figure. Abdominal diameter growth in singleton (S) and twin (T) pregnancy.

COMMENT

The present work indicates that our twin-specific charts can provide a valuable tool for the surveillance and evaluation of the twins' fetal growth and should supersede the commonly used singleton standards. Conversely, singleton standards for abdominal growth appear to be entirely satisfactory and practically useful for twin pregnancy management. This also indicates that the consistent slow-down usually observed in twin fetal growth clearly differs from the pathological hypotrophy in singletons, since abdominal growth is preserved. The present study also confirms that the dichorial placentation (which almost excludes vascular anastomoses) allows a better development than the monochorial one.

REFERENCES

1. Leroy B, Lefort F, Neveu P, Risse RJ (1978): Poids et taille des jumeaux à la naissance. In Rabat (ed): "27^{ème} Congrès de la Fédération des Sociétés de Gynécologie-Obstétrique de Langue Française." Paris: Edition Masson, pp 21–24.
2. Schneider L, Bessis R, Tabaste JL, Sarramont MF, Papiernik E, Baudet J, Pontonnier G (1977): Echographic survey of twin foetal growth: A plea for specific charts for twins. In Nance WE (ed): "Twin Research: Clinical Studies." New York: Alan R. Liss, Inc., pp 137–141.