

A NEW SCHEME FOR A CLASSIFICATION OF
INTRAUTERINE GROWTH RETARDATION ON
ECOGRAPHIC BASES

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The difficulties we have had now and then in fitting a few types of anomalous fetal growth, that we evaluated by measuring some classic fetal growth indices (1, 2), in conventional schemes (3, 4, 5), have induced us to plan the present study.

Some fetuses, of a known gestational age, present a biparietal diameter (BPD) clearly below standard and a transverse abdominal diameter (TAD) either up to or over standard; some present a reduction of BPD associated with a serious reduction of TAD.

Such irregular types of fetal growth cannot fit in with Rosso and Winick's classification (3).

Material and methods

We have observed 74 fetuses, whose growth lacked at least one of the biometric parameters under examination (BPD, TAD); their spontaneous motility was evaluated with Tajani's criteria (6). From the sixth month onward, the quantity of amniotic fluid was also calculated.

Ultrasonic observation was carried out with SSD 202 Aloka apparatus equipped with a 2.5 MHz probe. The scanning was carried out on supine women after a partial filling of their bladders.

Results

The 34% of fetuses have shown a proportional reduction of BPD (5th percentile) and TAD (at the inferior limits of 2nd S.D.) and a reduced motility (A Group).

Peculiar to 31% was a reduction of BPD (between 5th and 10th percentile) with a TAD following the rule; amniotic fluid up to standard. (B Group)

The 13.5% was characterized by a marked diminution of BPD (under the 5th percentile), associated with a more marked diminution of TAD (under the 2nd S.D.). A more or less marked diminution of the amniotic fluid as well as a reduction of the fetal motility were also discovered (C Group)

In 17.5% we have noted a normal BPD (25th-75th percentile) and a reduced TAD (in the limits of 2nd S.D.). The quantity of amniotic fluid varied, the fetal movements were more or less reduced. (D Group)

Difficulties in classifying the fetuses examined in the above mentioned schemes were met in 4%.

Discussion

The 44% of Group A fetuses were observed within the 25th week of gestational age; the 100% of B, C, D Groups were older.

According to our experience, we feel we can state that, as far as gestation goes on, Group A fetuses may either keep their characteristics or change; consequently, after a positive development they would be included in B Group ("improving"), whereas owing to further decaying they would be included in C Group ("worsening"). Such alternatives depend on whether the initial disease comes to an end or continues.

If a normal pregnancy is endangered by such pathological process after BPD has developed to its most and BPD-TAD relation has gone below 1, a D type alteration of fetal growth will result (small fetus disproportioned).

In conclusion, we think it possible to classify intrauterine growth retardation ecographically diagnosed into four main groups as follows:

- A) proportioned small fetus;
- B) "improving" small fetus;
- C) "worsening" small fetus;
- D) disproportioned small fetus.

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