UNIVERSITY OF MEDICINE AND PHARMACY OF CRAIOVA

DOCTORAL SCHOOL

SUMMARY

CURRENT BIRTH AND POSTPARTUM CONDUCT OF HYPOTROPHIC FETUSES RELATED TO RCIU ETIOPATHOGENY

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GENERAL APPROACH

PERSONAL APPROACH

GENERAL APPROACH

The intrauterine growth restrictions (RCIU) remain one of the main challenges of pre and post birth care. Improvements must start with a better definition of the RCIU term, by applying the potential fetal growth concept. By applying personalized standards on the fetal growth and birth weight, this improved the detection of RCIU with a better accuracy between small fetuses of physiological and pathological pregnancy age that led to norms being applied internationally. These evolutions led to new discoveries in risk evaluation and pregnancy supervision. Serialized measurements of uterine depth graphically represented on personalized charts make an useful screening tool, whereas the fetal biometry and Doppler flux make up the investigation and diagnostic RCIU. Adequate protocols based on available evidence plus individual clinic evaluation are essential to ensure the good management of cases and birth opportunity.

Intrauterine growth restriction refers to the state in which the fetus can't reach its growth potential genetically determined. This functional definition looks to identify a fetus population with unfavorable risk prognosis but which can be amended. This definition intentionally excludes the fetuses that are small for their respective pregnancy age (SGA), but which pathologically are not small. SGA is defined as an increase till percentiles 10 or less in relation to the weight of all fetuses at that certain pregnancy age. Having said that, not all fetuses that are small for their gestational age have a pathologically limited growth and in fact can be constitutionally small. Similarly, not all fetuses that have not fulfilled their genetic growth potential find themselves under percentiles 10 of the fetal growth estimate (GFE).

PRACTICAL PART

I.SCOPE OF WORK

The study was conducted to emphasize:

- analysis of the risk factors involved in RCIU etiology

- pregnancy completion method

- birth status quantified through the Apgar score plus the RCIU hypotrophic new-born response to resuscitation maneuvers

- fetal RCIU hypotrophic frequency among premature, on time and coming from twin pregnancy newborns

- post natal complications and the necessity of care within the neonatal intensive therapy section

- associated comorbidities to each category of hypotrophic RCIU newborns

-maternity evolution

II.METHODS AND MATERIALS

I have run an retrospective study in which were included a number of 141 hypotrophic newborns whose RCIU diagnose was established antepartum by echocardiographic method then confirmed postpartum based on weighted index, anthropometric measurements correlated on the intrauterine growth curves. The database was represented on the observation sheets and birth registries from 2010-2014 period.

I have analyzed not only the antepartum etiological factors that could have influenced the pregnancy's well going but also the postpartum complications that have encumbered the newborns from the studied sample

III.RESULTS AND DEBATES

On the 141 sample it was necessary to determine the birth Ballard score, to report the weight growth at gestation age based on the intrauterine growing curves, to calculate the weight index in order to identify asymmetric RCIU encircling the hypotrophic newborns based on VG, Gn and IP and also by observing an increased RCIU for premature newborns having VG=34-36 weeks and 6 days(41,48%) with asymmetric growth restriction(34.75%).Birth status was quantified through Apgar score correlated to VG, GN and IP whereas the fetal

suffering was argued through the presence of metabolic acidosis .

The risk factors involved in RCIU hypotrophia etiology can be split into 3 main categories: fetal, maternal and placental. On the case study sample there were identified more frequently the maternal factors: hypertension(53%), thrombophilia and maternal infections(ITU, chorioamniotitis and dental outbreaks-germs implicated in maternal infections are ordered based on frequency: staphylococcus, e.coli, streptococcal

HTA and premature membrane rupture but also cardiotocography imposed in the majority of cases of hypotrophic newborns with RCIU a birth through caesarean. The high percentage of caesarean operations (65.24%) can be explained through the necessity of death avoidance and to reduce neonatal morbidity. RCIU presence determines the necessity of frequent birth giving through caesarean.

IV.CONCLUSIONS

1. RCIU due to placental insufficiency (HTA, placenta praevia , infections) represents a main cause of morbidity and perinatal mortality, a frequent cause for neurological syndromes and hypoglycemia. Placental insufficiency constitutes an important risk factor for neonatal morbidity. RCIU comes second only to prematurity as a cause for perinatal mortality.
2. Ultrasonography antenatal RCIU diagnostic(obstetrics' most efficient screening method) leads in most cases to caesarian operation to finalize a pregnancy, by this avoiding the risk of perinatal asphyxia and easing the fetal prognosis
3. Efficient birth reanimation of a hypotrophic RCIU newborn, the prevention of hypothermia improves the survival leading to decreased neonatal morbidity rate and low incidence of postnatal complications
4. HTA remains the most frequent medical complication during pregnancy, with an increased incidence in ethiopathogenie restriction of intrauterine development. RCIU remains a contemporary problem in perinatology.

V. SELECTIVE BIBLIOGRAPHY

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