

THE OFFSPRING OF GESTOSIS

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Pregnancy-induced hypertension is a wide spectrum of disorders affecting both the mother - beyond the scope of this presentation - and the fetus, ranging from fetal death to IUGR and preterm labour, either spontaneously or induced.

With special and intensive care, neonatal mortality is uncommon. However the problems of hypoxia/HIE, hypoglycaemia, polycythaemia, thrombocythaemia and impaired immunity are well documented. Controversy remains as to whether preeclampsia is directly responsible for an increased incidence of cerebral palsy (CP) or, on the contrary, has a protective effect - in our experience we do not observe a higher occurrence of CP in the offspring of gestosis. For some time, acute fatty liver of pregnancy, HELLP (and related disorders) have been recognised in association with inborn errors of lipid metabolism in the fetus, mainly long-chain-3-hydroxyacyl-coenzymeA-dehydrogenase deficiency (LCHAD). What is not quite so well known is the role of other fetal abnormal lipids metabolism mediated by carnitine and acyl carnitines in the pathophysiology of preeclampsia, although it is quite possible that the accumulation of toxic metabolites, from impaired fatty acid oxidation, may shuttle back to the placenta contributing to the endothelial alterations of preeclampsia. Whether an abnormal or even carnitine deficiency may affect the neonate at a time when he is mostly dependent on fat metabolism for immediate energy requirements and cell differentiation is quite an interesting thought.

At follow-up, although we do not observe severe motor problems in our population of children of preeclamptic women, we do register a fair number with psychomotor development delay and learning difficulties, whether due to the neonatal complications or due to the unfavourable intrauterine milieu is open to question.

After the initial slow catch up, some of the children with intrauterine growth restriction start to show a disproportional weight gain. Will they be candidates for the late complications of adult obesity, insulin-resistance syndromes and cardiovascular-related problems?