

Désaccord parmi les néonatalogues

(NDLR) – La lettre ouverte ci-dessous a été adressée au Dr Pharoah et à la revue «The Lancet», en réponse à l'article de Pharoah et Adi¹⁾, que nous vous avons signalé dans la rubrique «lus pour vous» (Paediatrica Vol. 11, No. 6, 2000: 66). Bien qu'acceptée, elle n'a pas pu y être publiée par manque de place. Nous avons pensé qu'il serait toutefois intéressant de la publier dans Paediatrica en raison des nouvelles hypothèses présentées et afin de susciter une discussion à ce sujet parmi les néonatalogues suisses.

Pharoah and Adi have tried to quantify the risk for mortality and serious morbidity in surviving twins after fetal death of their co-twin in a large cohort study¹⁾. Although their methodology and therefore their exact figures have been questioned²⁾, the investigators add evidence underlining the fact that, in monochorionic twins, the infant surviving death of its co-twin carries a much higher risk of cerebral impairment than the survivor in dichorionic twins.

However, the leading responsible mechanism the authors bring up, namely a release of thromboplastin or emboli from the dead twin with consecutive disseminated intravascular coagulation or infarction in the survivor, seems rather improbable. First, it is difficult to understand how a dead fetus with no cardiac output, and therefore no pressure, could send thromboemboli via placental connections to the co-twin. Second, the topography and appearance of lesions in the surviving twin rarely correspond to a thromboembolic genesis³⁾. Third, there is no evidence for coagulopathy nor for emboli occluding cerebral vessels in postmortem studies performed in twins who initially survived with cerebral damage. Benirschke, who proposed this concept in 1961, has recently been led to conclude that this explanation may not be the principal etiology of the damage to the kidneys, liver and brain in surviving twins⁴⁾. There is much more convincing evidence

for the concept of an acute twin-to-twin transfusion from the survivor into the dying twin during its perigastral blood pressure decrease^{5) 6)}. This may impair organ perfusion and lead to hypoxic-ischemic tissue damage. Importantly, the hypotensive circulatory compromise can already take place in the agonal phase as well as after intrauterine death, making it so difficult to prevent. Moreover, only a short circulatory imbalance in the surviving twin may be sufficient for irreparable damage to occur. Therefore, any intervention to be effective has to be carried out before this reverse blood flow from the survivor to the dying or dead twin occurs. This concept should not be considered as an alternative mechanism, as proposed in Pharoah's article, but rather as the main explanation for this disruptive entity. In our view, it is important to bring this newer concept to the mind of all those involved with fetal demise in twin pregnancies as their decisions should be based on precise knowledge of this pathophysiology. The theory of thromboplastin or emboli infusion has the potential to mislead obstetricians and neonatologists to intervene in order to prevent brain damage. Interventions such as laser coagulation of placental vascular anastomoses or early delivery have all been tried after intrauterine death of one co-twin, but as yet, without convincing evidence to effectively prevent brain damage in the surviving twin⁶⁾.

We would like to emphasize that once a multiple pregnancy has been documented, chorionicity should be assessed as early as possible. In the situation of a single intrauterine death and a dichorial placenta, parents can be reassured concerning their surviving child's good prognosis. It is only the monochorionic twin who is exposed to organ damage after intrauterine death of its co-twin during the second or third trimester. Irrespective of a normal fetal or initial neonatal cerebral ultrasound, repeated cerebral ultrasonographies and a brain MRI or CT during the first three weeks are recommended to definitively rule out serious but also more subtle disruptive brain damage⁷⁾. Pathological exam of the placenta should also be mandatory in each case of fetal demise with a survivor of the same gender.

Références

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