Pregnancy in a 29-year-old woman in cerebral death

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Patient aged 29 in 21 + 4th weeks of first pregnancy admitted to the Intensive Care Department after sudden cardiac arrest, after effective 15 min. resuscitation, even undertaken at home by the husband. In an interview with the husband: the patient reported a severe headache, vomited, then lost consciousness.

In the ward there was retained the amine infusion, anti-swelling treatment in accordance with the recommendations of the neurosurgeon, anticoagulant therapy due to the high thromboembolic risk. Disorder of water, electrolyte and acid-base balance was compensated. Due to an interview indicating the neurosurgical cause of SCA, the CT scan was performed with radiological protection of the fetus. It was found: in the topography of the cerebellar vermis and ventricle IV, a large hematoma measuring 29 x 20 x 21 mm, blood visible in the foremost reservoir, over the tent of the cerebellum, in the crevices of the cerebellum, around the medulla (Fig. 1).

Therefore, ventricular drainage was applied and endovascular embolization was performed on arteriovenous malformation of the area of the quadratic plaque, which was the source of bleeding. Due to the significant damage to the CSN, after the consultation and conversation with the patient’s relatives, it was decided to maintain the vital functions of the patient to prolong the pregnancy until the fetus’ maturity gave the chance of survival.

FHR was controlled daily, hormones were supplemented due to disruption of the hypothalamic pituitary axis, and microbiological tests were performed. After 24 weeks steroid therapy, pentoxifylline infusion and DHA replacement were included. In CT scan, deletion of cortico-subcortical diversity was observed (Fig. 2). Clinically, the patient with dilated, areactic pupils, in a state indicating the death of the brain.

The condition of the levonor infusion gradually deteriorated, the circulatory instability appeared, and the spinal reflexes were observed indicating the progressive degradation of the nervous system. In view of the deteriorating condition of the patient, a decision was made on a planned cesarean section. A steroid-like dose and a magnesium infusion were administered in a neuroprotective regimen. Caesarean section was performed in planned mode at 27th week of gestation, a newborn born with a weight of 1250 g Apgar 5/6/7/7 was born and...
given to the neonatal team. The next day, angio-CT was performed by angiography of the intracerebral arteries without showing the flow (Fig.3). After a series of clinical trials, the commission for the adjudication of brain death determined the death of the patient.

The death of the pregnant woman’s brain is an extremely complex situation, requiring not only a well-thought-out plan of medical treatment but also requiring prudent decision-making in ethical and legal situation. Brain death in pregnant women is a very rare phenomenon, from which the birth of a viable child takes place in less than half of the patients. From this year to 2017, 37 such cases were registered in the world.