FETAL PAIN DURING PRENATAL SURGERY: THE STATE OF THE ART

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During open fetal surgery under maternal general anesthesia, providing additional analgesia for the fetus is still a matter of debate. In order to collect and analyze scientific literature on this topic, we performed a careful Medline research, matching the following key words: “pain”, “fetus”, “analgesia”, “anesthesia” “surgery”, “brain”, “behavioral states”.

We retrieved and analyzed those papers that provided:

- a) the most recent acquisitions about the development of pain routes;
- b) the current electrophysiological (EEG, evoked potentials and fetal magnetoencephalography) and behavioral evidence of fetal reactions to pain;
- c) the long term consequences of fetal pain;
- d) the most careful papers that had previously reviewed the scientific literature about this topic.

Conclusion: Clinical evidence shows that the doses of maternal anesthetic may not be sufficient to anesthetize the fetus, that fetal analgesia for fetal surgery is recommended after the middle of the pregnancy. Doses and routes of analgesic drugs, to achieve the best results, deserve further research.