



18. STROKE IN ASSOCIATION WITH IN VITRO FERTILIZATION

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Introduction. The incidence of stroke in pregnancy is increasing. In vitro fertilization (IVF) now accounts for 4.5% of all live births in Europe. A prospective cohort study showed an increased risk of cardiovascular disease after failed IVF. A meta-analysis involving women who received fertility treatment revealed an elevated risk of stroke or transient ischemic attack in pregnancy.

Aim of study. The study aims to analyze IVF, as a potential risk factor for stroke development, and type of stroke -ischemic, hemorrhagic, or cerebral venous thrombosis.

Methods and materials. The incidence of stroke in pregnancy is increasing. In vitro fertilization (IVF) now accounts for 4.5% of all live births in Europe. A prospective cohort study showed an increased risk of cardiovascular disease after failed IVF. A meta-analysis involving women who received fertility treatment revealed an elevated risk of stroke or transient ischemic attack in pregnancy.

Results. The incidence of thrombotic events after FIV has been reported to gain 0-2%. A lot of studies showed an increased risk of developing stroke in patients who were treated for infertility. A lot of cases showed a correlation between FIV and ischemic stroke. A study from Rutgers University showed that the risk of hemorrhagic stroke hospitalization was bigger compared to ischemic stroke hospitalization in women who were treated with fertility therapy. Another study found a correlation between FIV and hypertension after delivery. A Canadian study showed a higher prevalence of hyperlipidemia, hypertension and diabetes among women who received FIV compared to the control group. Sweden study found only correlation between hypertension after delivery and FIV. There are described some clinical cases that correlate FIV and cerebral venous thrombosis. Ovarian hyperstimulation syndrome can be due to thromboembolic disease. Suspected mechanisms could be: 1. increased risk factors as vascular complication after FIV- placental disease (preeclampsia), kidney disease and metabolic troubles (gestational diabetes); 2. physiologic prothrombotic state in pregnancy; 3. patients may already have disorders that could be associated with stroke risk factors (antiphospholipidic syndrome).

Conclusion. IVF can increase the risk of stroke. The risk for developing thrombosis during IFV is low, but it is higher compared to the general population. Correlation between type of stroke and IVF needs more clinical studies.

Keywords. In vitro fertilization (IVF), stroke.