The possibility of optimization of hemodynamics in the fetoplacental pool as a factor of influence on perinatal outcome

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Aim: To study the possibility of optimization of hemodynamics in the fetoplacental pool as a factor of influence on perinatal outcome.

Introduction: Endothelial dysfunction in uteroplacental pool is a universal response of placenta to adverse effects of hypoxia, which leads to a high percentage of obstetric complications. Recreation is a way of optimization of hemodynamics in fetoplacental complex in the interests of antenatal protection of the foetus.

Methods: The study was conducted at the 3rd Maternity hospital, Zaporozhye including 40 pregnant women with WD with age group of 21–36 years (Primapara – 52.5%, multipara is 47.5%). 40 pregnant women with chronic venous insufficiency to restore homeostasis used the IR thermo-camera, designed and implemented by the Department of Clinical Pathophysiology, Institute of physiology. Pregnant women of the main group underwent 3 sessions of IR sonotherapy (1 time per week), lasting 30 min at temperature of 35 °C.

Results: Pregnant women with WD after using sonotherapy in the infrared heat chamber in the complex sanatorium treatment, on comparison with the control group, a more pronounced therapeutic effect of lowering body weight by 22.3 ± 1.2%, and decrease of systolic 14.6 ± 0.2 mmhg and diastolic 15.1 ± 1.1 mmhg pressure. Ended pregnancy in a core group of women, the birth of full-term newborns with no signs of distress, with an Apgar score of 7–9 points, body mass 2980–4000 g, 1 in the case of birth by caesarean section for obstetric indications.

Conclusion: The research conducted in the sanatorium “Velikii Lug”, confirms the effectiveness of the use of the IR sonotherapy in optimizing antenatal protection of the fetus against the background of endothelial dysfunction.

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Bile duct injuries after cholecystectomy: A retrospective tertiary centre study comparing outcomes of different types of surgical treatment

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Aim: Evaluation of long-term outcomes after different types of surgical management of postcholecystectomy bile duct injuries (BDI).

Introduction: Cholecystectomy is one of the most routinely performed procedures in abdominal surgery. Despite the growing experience of surgeons and benefits of minimal invasive approach, BDIs still occur. The treatment of this complication is challenging.

Methods: This was a single-center retrospective study. The outcomes of 64 consecutive adult patients, surgically treated after postcholecystectomy BDI 2002–2016, were reviewed. The newest EAES ATOM classification was used to describe injuries. The anatomic characteristics of the injury and long-term treatment outcomes were evaluated.

Results: 48 (75%) BDI followed laparoscopic cholecystectomy. 26% of injuries were detected intraoperatively, 58% detected <7 days, 16% >7 days after the procedure. The injury of non-main bile duct was diagnosed in 10 (16%) cases. The injuries of main bile duct: choledochal duct 22 (34%), hepatic duct 22 (34%), bifurcation with right-left communication preserved 5 (8%), bifurcation with right-left interrupted 1 (2%), right/left hepatic duct 4 (6%), 26 (41%) patients with a cystic stump leak or partial division of duct were managed endoscopically. This treatment was successful for 7 (88%) cystic stump leaks and 8 (58%) partial divisions. 13 (20%) partial divisions of duct were closed by suture. 8 (73%) patients had complications which later required endoscopic management or hepaticojejunostomy. End-to-end anastomosis (6 (10%)) or hepaticojejunostomy (16 (25%)) was initially performed after the complete division with or without loss of substance was detected. End-to-end strategy was successful in 4 (67%) cases, others finally required hepaticojejunostomy. The complication rate after initial hepaticojejunostomy - 25%.

Conclusion: Endoscopic treatment is optimal for cystic stump leaks and partial divisions of ducts. Complete divisions with or without loss of substance may be treated by hepaticojejunostomy and end-to-end anastomosis with similar long-term outcomes. While end-to-end anastomosis is more physiological, this strategy should be considered when possible.

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Perinatal loss in multiple pregnancies

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