

on the clinical course of gestational processes and its impact on perinatal outcome. Secondly, I would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame.

<http://dx.doi.org/10.1016/j.pbj.2017.07.160>

PS014

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

Vinisha Tekwani^{1,*}, Varahabhatla Vamsi¹, Katnam Sahithi¹, Nataliya Gaidai^{2,*}

¹ Students of 4th year Medicine, Ukraine

² Scientific Supervisor, Associate Professor, Ukraine

E-mail address: vinishatekwani33@gmail.com (V. Tekwani).



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 VD with age group of 21–36 years (Primipara – 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 VD 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 $22.3 \pm 1.2\%$, 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.

Acknowledgements: I wish to express my sincere gratitude to my scientific supervisor Mrs. Nataliya Viktorovna Gaidai for providing me an golden opportunity to be a part in this project. I also sincerely thank my co-authors Mr. Vamsi Varahabhatla and Katnam Sahithi for their guidance and encouragement in carrying out this project work. Finally, I would like to thank my family for supporting me financially and morally.

<http://dx.doi.org/10.1016/j.pbj.2017.07.161>

PS090

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

R. Zulpaite^{1,*}, A. Sileikyte¹, A. Sileikis²

¹ Faculty of Medicine, Vilnius University, Vilnius, Lithuania

² Center of Abdominal Surgery, Vilnius University Hospital, Santaros Klinikos Santariskiu str. 2, 08661 Vilnius, Lithuania

E-mail address: ruta.zulpaite@gmail.com

(R. Zulpaite).

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.

<http://dx.doi.org/10.1016/j.pbj.2017.07.162>

PS041

Perinatal loss in multiple pregnancies

L.G. Sichinava, A.O. Dulaeva*, D.S. Spiridonov

Pirogov Russian National Research Medical University (RNRMU), Russia

E-mail address: littleinwonderland@gmail.com (A.O. Dulaeva).



Aim: The aim of the study was to analyze causes of perinatal loss in multiple pregnancies.

Introduction: In population rate of multiple pregnancies varies from 0.7 to 1.5%. Multiple pregnancies are complicated by perinatal loss 4–9 times more frequently than singleton pregnancies.

Methods: Retrospective study of medical histories was carried out. Thirty patients with twin pregnancy and perinatal loss of one or both fetuses were included. Thirteen (43.3%) twins were mono-chorionic (MC), 17 (56.7%) – dichorionic (DC). At 11–14 week of gestation chorionicity was diagnosed by ultrasound; transvaginal measurement of cervix was performed at 19–21 week; biometry was done to identify degree of fetus' discordance.

Results: Complications of DC pregnancy: discordant fetal growth – 17 (100%), fetal growth restriction – 7 (41.2%), cervical insufficiency – 4 (23.5%). Discordant fetal growth was diagnosed in 17 DC twins: 8 (47.1%) – $\leq 20\%$, 9 (52.9%) – $> 20\%$. 8 (47.1%) patients with discordance $> 25\%$ had highest degree of fetal growth restriction (estimated fetal weight $< 5\%$).

Perinatal loss in patients with DC twins was 61.8% (21 of 34 children). Highest mortality [10 of 21 (47.7%)] was among newborns at 22–27 week of gestation with DC type of placentation: 7 – intrauterine death, 3 died postnatally. Seventeen cases of intrauterine death were diagnosed: 7 (41.2%) – 22–27 weeks, 3 (17.6%) – 28–31 weeks, 5 (29.4%) – 35–36 weeks, 2 (11.8%) – at term.

Complications of MC pregnancy: discordant fetal growth – 13 (100%), twin-to-twin transfusion syndrome (TTTS) – 11 (84.6%), fetal growth restriction – 9 (69.2%), cervical insufficiency – 4 (30.8%). Discordant fetal growth was diagnosed in 13 MC twins: 7 (53.8%) – $\leq 20\%$, 6 (46.2%) – $> 20\%$. Four (30.8%) patients with discordance $> 25\%$ had selective fetal growth restriction.

Perinatal loss in patients with MC twins was 80.8% (21 of 26 children). Highest mortality [13 of 21 (61.9%)] was among newborns at 22–27 week of gestation: all of them died antenatally. Nineteen cases of intrauterine death were diagnosed: 13 (68.4%) – 22–27 weeks, 4 (21.0%) – 28–31 weeks, 1 (5.3%) – 35–36 weeks, 1 (5.3%) – at term.

Conclusion: There were 1.3 times more perinatal losses in MC twins than in DC twins (80.8% vs. 61.8%). Regardless of chorionicity, perinatal losses were observed more frequently at 22–27 weeks of gestation: DC (47.7%) and MC (61.9%) twins. Causes of perinatal loss in DC twins: prematurity – 52.9%, discordant fetal growth ($> 20\%$) – 52.9%, fetal growth restriction – 41.2%. Causes of perinatal loss in MC twins: TTTS – 84.6%, prematurity – 76.9%, fetal growth restriction – 69.2%, discordant fetal growth ($> 20\%$) – 46.2%.

<http://dx.doi.org/10.1016/j.pbj.2017.07.163>

PS230

Hyaluronic acid solution as a treatment of adhesive intestinal obstruction in children – A positive effect



M.A. Isa*, O.B. Bodnar

Bukovinian State Medical University, Department of Paediatric Surgery and Otolaryngology, Ukraine
E-mail address: mashforreal@yahoo.com
(M.A. Isa).

Aim: To explore the possibility of using hyaluronic acid solution (HAS) for the treatment of intraperitoneal adhesions in children.

Introduction: Adhesive intestinal obstruction (AIO) has been found to be a challenging problem of abdominal surgery with increased occurrence in children worldwide. Intraperitoneal adhesions occur commonly after abdominal surgery and frequently cause intestinal obstruction. Current means of adhesion prevention includes good surgical technique and anti-adhesion barriers. This study is hence directed towards the effect of hyaluronic acid solution (HAS) in reducing the incidence and recurrence of adhesions.

Methods: 84 children were operated on for AIO. 21 children (25%) were operated on for early adhesive intestinal obstruction (EAIO), 63 (75%) – on late adhesive intestinal obstruction (LAIO) and 12 (14.29%) for recurrent AIO. Following surgery, these children were divided into two groups; group I (56 patients) and group II (28 patients). The Hyaluronic Acid Solution; Defensal was used. Follow-up on the children took place from 1 to 4 years.

Results: 13 children (23.21%) in group I were found to have adhesion syndrome in the first year after surgery. This increased to 20 (35.71%) patients over the 4 year period. Children in the II group who had undergone treatment for adhesion syndrome (cured conservatively using HAS) over a 2.5 year postoperative period were not found to have adhesive syndrome at the end of the follow-up period with the exception of 2 (7.14%) patients. When compared to group I patients who had no treatment by the HAS, group II patients showed a higher degree of recovery with minimal recurrence.

Conclusion: Although accompanied by a minimal recurrence rate, HAS shows effectiveness as a treatment for adhesive intestinal obstruction in children. This serves as a step further towards a complete prevention of postoperative adhesion common in children.^{1–11}

References

1. Alwan MH, van Rij AM, Greig SF. Postoperative adhesive small bowel obstruction: the resources impacts. *N Z Med J*. 1999;12:421–3.
2. Wilkins BM, Spitz L. Incidence of postoperative adhesion obstruction following neonatal laparotomy. *Br J Surg*. 1986;73:762–4.
3. Festen C. Postoperative small bowel obstruction in infants and children. *Ann Surg*. 1982;196:580–3.
4. Janik JS, Ein SH, Filler RM, et al. An assessment of the surgical management of adhesive small bowel obstruction in infants and children. *J Pediatr Surg*. 1981;16:225–9.
5. Vijay K, Anindya C, Bhanu P, Mohan M, Rao PL. Adhesive small bowel obstruction (ASBO) in children—role of conservative management. *Med J Malaysia*. 2005;60:81–4.
6. Akgur FM, Tanyel FC, Buyukpamukcu N, Hicsonmez A. Adhesive small bowel obstruction in children: the place and predictors of success for conservative treatment. *J Pediatr Surg*. 1991;26:37–41.
7. ten Broek RP, Issa Y, van Santbrink EJ, Bouvy ND, Kruitwagen RF, Jeekel J, Bakkm EA, Rovers MM, van Goor H. Burden of adhesions in abdominal and pelvic surgery: systematic review and met-analysis. *BMJ*. 2013;347:f5588.
8. Loftus T, Moore F, VanZant E, Bala T, Brakenridge S, Croft C, Lottenberg L, Richards W, Mazingo D, Atteberry L, et al. A protocol for the management of adhesive small bowel obstruction. *J Trauma Acute Care Surg*. 2015;78:13–9 [discussion 19–21].
9. Di Saverio S, Catena F, Kelly MD, Tugnoli G, Ansaloni L. Severe adhesive small bowel obstruction. *Front Med*. 2012;6:436–9.
10. Okabayashi K, Ashrafian H, Zacharakis E, Hasegawa H, Kitagawa Y, Athanasiou T, Darzi A. Adhesions after abdominal surgery: a systematic review of the incidence, distribution and severity. *Surg Today*. 2014;44:405–20.
11. Catena F, Di Saverio S, Coccolini F, Ansaloni L, De Simone B, Sartelli M, Van Goor H. Adhesive small bowel adhesions obstruction: Evolutions in diagnosis, management and prevention. *World J Gastrointest Surg*. 2016;8:222–31.

<http://dx.doi.org/10.1016/j.pbj.2017.07.164>