

was done using an 8-MHz curved – array sector transducer attached to a “Toshiba Just Vision 200 (Model SSA-320A, Tokyo, Japan)” for (1) detecting nonpalpable nodules, (2) to defined relation between myomas and uterine cavity, uterine vessels (criteria's were published previously (Mishina A., Gyn. Surg. 2005; 3; 223 – 225). Results: In 37 (47.3%) cases axial and sagital images of the uterus revealed additional non-palpable small myomas less than 2.0 cm, situated intramural and submucosal, in 34 cases (43.5%) were opened uterine cavity, especially for submucosal myomas. Postoperative recurrence, morbidity and mortality was zero. Our case highlights the efficient application of IOUS in open reproductive procedures for MM, which allows determining the completeness of nodule excision less than 2 cm in diameter; examinations of myometrium in preventing residual myomata; defining the locations of nodules to uterine artery and cavity.

## Evolutionary Particularities of Gestational Period in Rh Incompatibility

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In spite of a large number of studies, the Rh incompatibility remains one of the most controversial problems in contemporary obstetrics, because of the influence of it on perinatal morbidity and mortality. The study was based on evaluation of 247 cases of Rh incompatibility, in IMSP SCMN1. Anamnestic facts, clinical and paraclinical evidences (immunological tests, USG exam, Doppler) and evolution of gestation was determined. In 95,5% cases patients were included in group between 18 and 35 years old. In 159 cases (64,4±3,0%) were atested primiparous and in 35,6±3,0% - multipara. In 65 cases (26,3±3,0%) the anamnesis was complicated by medical and spontaneous abortion, with a high level among primiparous. The evolution of gestational period was catracterised by the associated extragenital diseases in 86 cases (34,8±3,0%), the presence of viral and bacterian infections (43 cases - 17,4±2,4%), etc. The diagnosis of Rh incompatibility was established by clinical and paraclinical examinations. In the majority of cases the patients were unsensibilized, and only in 8 cases (3,2±1,1%) was atested a high level of antibodies (1:8 -1:16). In 231 cases (93,5±1,6%) babies were born per vias naturalis and in 16 (6,5±1,6%) – by ceasarian section. The Rh incompatibility is one of the actual problems in obstetrics; wich needs to be evaluated in the near future. In these cases, the possible isoimmunisation need to be diagnosticated in early gestational period, for making a correct decision in its management.

## Optimization of Infusional Therapy in Burn Shock in Children

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Severe thermal injury in children causes significant changes of electrolytic and proteic balances with an early development of multiple organ failure syndromes. Till present days, issues regarding the stabilization of blood circulation indicators in children with burn shock remain unsolved. Restoring the circulatory volume is usually done mostly by the infusional therapy. The calculation of fluid needs vary depending on age, weight and the area of the burned surface. The most used formula for calculation of fluid needs is the Parkland formula - 3-4 ml / kg /% of the burn surface of crystalloid solutions during the first 24 hours. A more grounded approach to fluid therapy in children is the Carvajal formula, based on the fact that the ratio of surface area to body weight in

children is bigger than in adults: 2000 ml Ringer lactate for 1 m<sup>2</sup> of total body surface area + 5000 ml of Ringer lactate for 1 m<sup>2</sup> of the burns surface. P. Y. Gueugniaud et al. propose the use of crystalloid solutions Ringer lactate only in the first 6 h after the injury, in a dose of 1 ml / kg / % burn area. In the next 18 hours of crystalloids in doses of 1ml/kg / % burn area and colloids in doses of 1 ml / kg / % burn are prescribed. The total volume of infusion therapy should not exceed 4 ml / kg / % burn area during the first 24 hours. K. Okabayashi et al. consider that it is possible to increase the volume of fluids injected in children with massive burns in the first day after injury from 7 to 9.4 ml / kg / % burn. The next day, 50% of the first day dose is used. After 48 h or more, infusion therapy is calculated by the sum of physiological needs and the pathological (abnormal) losses. The issue regarding inclusion of colloidal solutions in the anti-shock measures is currently under discussion. In some of clinical centers, colloidal solutions are recommended in 12-24 hours after the injury - the time when capillary permeability may partially return to normal. However, the albumin infusions to patients during clinical stabilization after an adequate resuscitation with crystalloid infusion therapy resulted in a significant decrease in glomerular filtration rate, despite the increase of plasma volume. Some authors believe that the application of colloidal, protein solutions and / or hypertonic solutions of sodium chloride can reduce the volume of injected fluid. The use of hypertonic solutions may lead to the development of hypernatraemia, hyperosmolarity and an increase of edema in the burned area. There are evidences of the development of renal failure in patients with severe thermal injury, in which a complex anti-shock therapy included hypertonic sodium chloride solution. Despite this, authors consider the application of this solution in the treatment of critical burn shock justified. In general, an infusion therapy program for patients with burn shock is a complex, multi-faceted and highly actual issue.

## Ethiology of Thermal Burns in Children

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Burns represents one of the most difficult surgical pathologies in children and include some serious injuries with skin necrosis, fat tissue, muscles, tendons, nerves, blood vessels, bones, with a very dynamic deployment according to the stages, comprising the major symptoms of dehydration, hypoxia, anemia, metabolic disorders, endotoxemia, immune collapse, septic complications, acute multiorgan failure syndrome. According to the Republican Center's for Thermal Injuries statistics, burns in children represents about 5-10% of all acute injuries in children. More than half (64.5%) of children with thermal injuries are nursery and preschool age (1-5 years). But according to severity, complications and disability degree burns are situated as follow: electric burns (3.5-4%), by flame (14.2%), by contact with incandescent solids (8.7%). In most cases burns were caused by hot liquids (72.8%). The present study was conducted by Burns and Plastic Surgery Clinic of the Clinical Republican Hospital for Children "Em.Cotaga" over the past 10 years. Analyzing the evolution of trauma in 4864 children aged up to 18 years, we have elucidated the incidence, nature of deterioration, and burns complications. After etiology factors: burns with hot liquid, overheated steams - 2682 (55.1%), burns by flame or by electric flame - 1182 (24.3%), burns by incandescent bodies - 835 (17.2%), electrical burns - 262 (5.4%), chemical burns - 36 (0.7%), solar burns - 49 (1.0%). According to the depth of the burn: superficial burns (I-II-IIIa) - 2160 (44.2%), deep burns (IIIB to IV) - 2704 (55.8%). Complications: thermal shock was found in 26% of all traumatized children, septic complications - manifested by septic shock, destructive pneumonia, myocarditis, hepatitis, nephritis and toxic encephalopathy were detected in 6.4% of hospitalized patients. Location: The most frequent location of burn are upper limbs, the head -72.5%, on the 2nd place were placed patients with facial, neck and torso burns, - 48%, the lower limbs have 26% of all trauma patients, but