

ALGORITHM OF DIAGNOSIS AND TREATMENT OF VASCULAR ANOMALIES

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Vascular anomalies (VA) are characterized by a wide range of diseases, occurring at different frequencies and significantly different from each other, which presents great difficulties in their diagnosis and treatment. Since 2001, more than 5000 children and adults with VA have been treated. The work was based on the classification of VA adopted by the ISSVA. Methods that evaluated local hemodynamics (LHD), such as ultrasound with color Doppler mapping, thermal imaging, spectrophotometry, were of significant importance in the differential diagnosis of VA, in determining the stage of development of infant hemangioma (IH), in choosing a method of treatment and monitoring its effectiveness. Methods of managing patients with VA included in IH: observation, treatment with propranolol systemically and locally, laser thermotherapy, non-contact and interstitial; with vascular malformations: sclerotherapy with picibanyl and bleomycin, laser thermotherapy without contact and interstitial, IPL-therapy, excision. The main goal of treatment of VA was to obtain the best cosmetic result while maintaining the functions of the affected area. In children with IH, three variants of LHD - intensive, moderately elevated and normal, were observed. 45% of children with IH with normal or moderately elevated LHD were simply observed. Laser thermotherapy was performed in 10% of children with intensive LHD (in parallel with treatment with propranolol) and in the presence of ulceration of IH. The rest of the children were treated with propranolol systemically or according to the original technology locally. In the treatment of venous or arteriovenous malformations, thermal therapy with laser radiation with a wavelength of 1.56 μm was effective, especially in combination with a wavelength of 1.94 μm . With lymphatic malformation, large cysts were sclerized with picibanyl or bleomycin (efficacy greater than 75%). Small and microcamps were heated by laser radiation with a wavelength of 1.94 microns. In general, the algorithm developed allowed to significantly increase the efficiency of diagnosis and treatment of this difficult and very diverse pathology.

THE NEW DEVICE FOR EXTRACORPORAL HERNIOTOMY IN CHILDREN

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In recent years, approach to surgical treatment of congenital inguinal hernia at children cardinaly changed, and first of all, it is bound to daily introduction and use of a laparoscopy which allows "to approach" a problem with another side, and technology of operation practically excludes contact with ductus. In the last time a new method of an inguinal herniotomy in children - a video assisted percutaneous internal ring suturing (PIRS). From June, 2012 till January, 2016 by a technique of PIRS in our clinic was operated 369 children with congenital inguinal hernia. We developed: the device for suturing of an internal abdominal ring and a needle for a herniotomy (Patents for the useful RU 153074 U1 and RU 163478 U1 model "The Device for a suturing of an Internal Abdominal Ring" and "Needle for a Herniotomy").

The device represents needle 100mm with the conductor. External diameter of a needle is 3 mm, internal 2 mm. On the proximal end of a needle - a cannula suitable for connection of the reference syringe 5 of ml. The distal end has the ellipse form. In a gleam of a needle two threads are located: the first - the main, the distal end is bent in the opposite direction. The material which is not resolving. The second thread - auxiliary forms "lasso".

The average duration of an extracorporal herniotomy (taking into account an anesthesiology grants) - at unilateral hernia makes in our clinic 16,3 \pm 5 min., at bilateral 24 \pm 3 min. At use of the developed device duration of operation was reduced by 5 \pm 3 min.

The method of a video assisted percutaneous internal ring suturing at congenital inguinal hernia at children with use of the developed device for a suturing of an internal abdominal ring proved as the fast, reliable and giving excellent cosmetic effect.