Materials of Conferences

THE SPIRIT-PROCAINE BLOCKADES IN THE TREATMENT OF THE VERTEBRAL ARTERY SYNDROME

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The irritative and reflective spasm of vertebral arteries (VA), besides extravascular compression, plays a big role in the development of the spondylogenous vertebral-basilar arterial insufficiency (VBI).

We have investigated 45 patients with VBI. During the X-rays examination all the patients had got degenerative changes in cervical spine, as in vertebras, so in intervertebral joints and disks.

Duplex ultrasound investigation found extravascular compression of vertebral arteries ─ in 12 cases two-sided, in 23 ─ unilateral. The levels of compression were identified with data of the X-rays examination of the cervical spine. The spasm of VA without compression took place in 10 cases. Transcranial ultrasound investigation had found the decrease of linear blood circulation rate (LCR) in VA, also in the basilar arteries (BA) in the most cases. There were the increase of the resistant index (RI) in these arteries in all the cases, which is the objective deponent of the spasm. We have also revealed positional dependence ─ while turning head to the contralateral side the LCRs in the injured VAs were decreased by 34,5±3,3% from the initial, and in the BA ─ by 28.9±2,7%; simultaneously were increased RIs ─ by 0,08 from the initial significations (on the average).

The procaine blockades (PB) of the periarterial sympathetic plexus at the level of the third segment of VA (S.Novocaini 2% - 3ml) were performed to all 45 patients. For 15 of them (with damage of the both VAs) were made bilateral blockades, for the remaining ─ at the injured side. After 7 days were made periarterial alcoholizations (PAA) for all the patients at the same level (30° ethyl alcohol). The neurological and ultrasound examination was repeated in 3, 72 hours after PB and in 3, 72 hours and on the tenth day after PAA.

In the nearest period after PB the improvement of the condition, the decrease of the clinical signs of VBI and positional dependence were noticed in the most cases(66,7%). On the whole, good and excellent nearest results had got 30 among 45 patients. The duration of the effect of PBs was ranged from 5 to 72 hours.

The positive dynamics in neurological condition after PAA on the whole is similar with the early therapeutic effect of PBs. The regression of the symptoms had come in the more number of the patients than after PB. Besides, the therapeutic efficiency of the PAAs was more steady than after the PBs ─ significant improvement of the clinical condition after 72 hours was noticed in 36 cases(80%).

At the end of the hospitalization (10^{th} – 12^{th} day after PAA) 12 patients had got excellent, 21 ─ good and 7 patients ─ satisfactory results of the therapy.

The clinical improvement was correspond to the ultrasound data. The LCR has increased in comparison with the initial ones from 35,2 to 42% in VAs, and from 22,4 to 52% in BAs, 16 patients had got normal indexes. Normal indexes of RI were noticed in the most cases, the positional dependence has decreased significantly. The reduction of the interhemispherical asymmetry of the circulation took place in all the cases with one-sided defeat of the VAs.

The application of the spirit-procaine blockades of VA is effective and pathogenically justified method of treatment of the VBI caused by vertebral pathology.

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THE BIOLOGY OF THYMOSIN PEPTIDES

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The thymosins are a family of hormonal-like peptides which in combination with cytokines, T-cells, B cells, dendritic cells, and macrophages, help to provide an immune umbrella for combating pathogenes, destroying malignant cells and regulating wound healing and angiogenesis. Thymic derived peptides isolated from thymosin fraction 5 also play a more general physiological role and have been found to influence a number of endocrine and neuroendocrine pathways. Biological response modifiers such as thymosin-α_1 ($T\alpha_1$), are produced in significant quantities within the thymus whereas other for example, thymosin-β_4 ($T\beta_4$), the major actin sequestering peptide in cells are more ubiquitous in nature and are found in highest concentrations in blood platelets, neutrophils, macrophages and a wide variety of other cell types.

Recent studies have established that Toil can block in a time and dose dependent fashion glucocorticoid (GC) induced apoptosis of immature thymocytes. Apoptosis of developing thymocytes is a crucial process in the development of T-cell immunity. The life and death of thymocytes (as well as other cells), is a crucial balance of microenvironmental and intracellular signaling. Apoptosis of thymocytes is influenced by interaction between developing thymocytes and the microenvironment of the thymus. This finding may