AGE-RELATED FEATURES OF ETIOLOGICAL FACTORS OF CEREBRAL STROKE IN CHILDREN

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Abstract. *Cerebral stroke (CS) in children significantly differs from adults due to the diversity of etiological factors. In 20% of verified cases the cause remains undetermined.*

Keywords. *Cerebral stroke, children, age-related etiology, hemorrhagic stroke, ischemic stroke.*

Materials and Methods

A clinical analysis of 66 children with CS was conducted:

- <1 year – 10 (15.4%)
- Early childhood – 6 (9.2%)
- Preschool – 15 (23.1%)
- Primary school – 17 (26.2%)
- Adolescents – 18 (27.7%)

Stroke type: hemorrhagic – 34 (51.5%), ischemic – 32 (48.5%).

Gender: boys – 60.6%, girls – 39.4%.

Lethality: 12.1% (only hemorrhagic CS).

Results

- I-order factors:
  * Cerebral – vascular malformations (28.8%), brain anomalies, encephalitis, arteritis.
  * Extracerebral – cardiac defects (10.6%), hematological disorders (7.6%), renal (3.0%), endocrine (3.0%).
- II-order factors:
  * Perinatal pathology (25.8%), hypoxic-ischemic encephalopathy, prematurity, hydrocephalus.
  * Arterial hypertension (16.7%), physical overstrain (9.1%), mild TBI.

Age features:

- Hemorrhagic CS dominated in infants and early childhood, ischemic CS – in older groups.
- Cerebral factors prevailed in schoolchildren/adolescents.
- Extracerebral factors were most significant in early childhood/preschoolers.
- II-order factors (especially perinatal) had greater impact in infants and preschoolers.

Conclusion

The etiological spectrum of CS in children is age-dependent. Critical risk periods:
- Infants: perinatal pathology, hemorrhagic CS.
- Preschoolers: mild TBI, cardiac defects.
- Schoolchildren/adolescents: vascular malformations, hypertension, physical overstrain.

With age, the number of identifiable causes decreases, while strokes with unknown etiology increase.

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