spatial orientation of the organ in the abdominal cavity relative to the frontal and sagittal planes.

Results and Discussion. Liver displacement relative to the frontal plane of anterior (anteflexio) was determined in 34 people (16.5%); posterior (retroflexio) — in 13 people (6.4%). Displacement of the liver relative to the sagittal plane to the right (dextropositio) found in 54 of the examined persons (26.3%), while displacement of the liver to the left (sinistropositio) found in 13 patients (6.4%). The intermediate position of the liver is 67 people (32.7%). The combined liver displacement in both sagittal and frontal planes was revealed in 24 patients (11.7%).

Conclusions. Taking into account the anatomical variability of the liver position in the abdominal cavity will allow to avoid errors in the interpretation of morphometric parameters of the organ, and will provide additional information to surgeons that can optimize the operational access to the liver.

CLINICAL AND RADIOLOGICAL DIAGNOSIS OF ANOMALIES OF DENTITION IN CHILDREN WITH PSYCHONEUROLOGICAL DISORDERS

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Key words: *computer tomography, orthopantomography, children, psychoneurological disorders, congenital anomalies, teeth*

Background. Dental morbidity in children with psycho-neurological disorders (PNR) is much higher than in children without comorbid pathology.

Aim. Dental disturbances in the studied category of patients can be considered as a direct consequence of the perinatal pathology of the nervous system.

Material and Methods. In the survey, 267 children of the main group aged 7–17 years with psychoneurological disorders of varying severity participated. Control group — healthy children of similar age. X-ray examination in children of the main group with deviant forms of behavior (70.5%) was performed on an outpatient basis under anesthesia.

Results and Discussion. Analysis of computer tomography and orthopantomograms of jaws revealed a high percentage (43.7%) of congenital pathology (primary adentia, true follicular cysts and superfine permanent teeth) in children with PNR in comparison with the control group (8.3%). Perhaps, this is due to factors acting at different stages of development, especially in the period of histoorganogenesis of the neural tube and oral cavity (from 5–6 weeks of embryonic development).

Conclusions. Systematization of dentition anomalies will allow standardizing and unifying surgical care for children with PNR congenital pathology and optimizing the planning of orthodontic and prosthetic treatment. Children who have a history of pre-, intra- and postnatal factors in the development of central nervous system pathology are recommended to be included at the risk of developing major dental diseases at birth.

3D AESTHETIC ANALYSIS OF ORBIT AND PERIORBITAL REGION

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Key words: *3D analysis, negative vector, blepharoplasty, midface, ophthalmometry*

Background and Aim. Evaluation of preoperative and postoperative conditions is essential in lower lid blepharoplasty and midface lift. The laxity of the lower lid and insufficient malar bone prominence accompanied by excessive eye prominence known as a «negative vector» are the common condition which can lead to unsatisfactory aesthetic result and various ophthalmological complications. At the current moment the pre- and post-operative evaluation is based on two-dimensional photography and physical examination.

Material and Methods. We developed the 3D evaluation methodology for the midface region based on photogrammetric study and computed tomography. The photogrammetry scanning is performed on a patient in upright position. On CT images the skeletal tissue of face, eye globes and soft tissue complex are segmented and calculation of 3D models of these structures in performed. Then the acquired 3D model is aligned to soft tissue model from CT data by defining points and regions.

Results and Discussion. The relative position of the eye globe to orbit and orbital rim is assessed by the mass center of these anatomical structures. To correlate the traditional ophthalmometry the eye prominence is measured from bicanthal frontal plane. The skin surface geometry is analyzed by curvature analysis allowing contrasting relief features as a nasojugal groove, nasolabial fold and tearing trough. To evaluate its ptosis degree the position of the nasojugal groove is measured relatively to the arcus marginalis. Soft tissue thickness analysis is performed to access the midface soft tissue distribution.

Conclusions. The described analysis method is able to provide substantial data for clinical evaluation of periorbital region.