Language, the second signaling system, complexly integrates the body into the environment, assures interference with fellows, and modulates the thoughts and feelings to be communicated to others. The embryonic development of the encephalus is performed early on days 16-20 and determines the appearance of the neuroenteric canal and the appearance of the tridermic embryonic disc. The sketch of the Broca area has been researched from anatomopathological point of view, following a study carried out on fetal brain samples taken postpartum, shows that the sketches of the future Broca area are observed in gestation at week 23. Neural migration and glial cell distribution reveal the existence of a detectable neuroblasts reservoir, beginning at week 18, with exuberant evolution to a organized histoarchitectonics at 20-23 week. The premises of a future impairment in the development of the Broca area and, implicitly, of language can be established early in fetal life.

Keywords: Broca area, language, neural migration, cerebral histoarchitectonics
Experimental part
Methods and materials
To study the cortical histology of the Broca area, we have taken fragments from the superior versant of the lateral hemisphere of the left brain hemisphere from fetuses with gestational age between 16 and 23 weeks, recorded with perinatal death in Municipal Clinical Hospital Filantropia from Craiova. The fragments taken were subjected to the classical histological processing: fixation in 10% formalin, dehydration, paraffin inclusion, microtome sectioning, 5 microns thickness, deparaffinization and staining with hematoxylin and eosin. The preparations obtained were examined with the research microscope Nikon E600; Microphotographs taken with Nikon DN100 camera were purchased and processed using the LucilNet system.

In days 16-20 after fecundation are the period of neuroenteric channel appearance and the separation of the three endo, exo and mesoblast layers which create the tridermic embryonic disc, and implicitly the premise of NS development (derived from the embryonic ectoderm).

In the 2nd month the embryo receives humanoid forms with the voluminous cephalic extremity with cerebral vesicles, the primordial of the hemispheres situated anterior.

The second month (8 weeks) of pregnancy is labile and sensitive to the toxic factors; due to the rapidity and amplitude in which the processes of differentiation are carried out, any disturbance of the induction mechanism leads to mutagenic effects.

At 12 weeks of gestation, the brain is fully formed. It was done the sampling from the left superior versant of the sulcus and of the cerebral hemispheres for fetuses of 16-23.

In the 4th month (16 weeks) there is anatomo-pathologically an outline of the cerebral dite, with an uncertainty delimitation between the frontal and parietal lobes, the neuroblasts and the glial cells make an homogeneous, undifferentiated layer.

At 18 weeks begins to visualize the part of the glial sector that delimits the cortical neuronal migration.

At 23 weeks begins to visualize the part of the glial sector that delimits the cortical neuronal migration.

At the 16-week-old fetus, the lateral sulcus is present, but the central ditch is sketched only very vaguely to the superior edge of the cerebral hemisphere. For this reason, the paraventricular area is a cellular rich populated paraventricular reservoir with neuroblasts (fig. 3), from which start thin rays of radial migration (fig. 4) start to the cortex already undifferentiated stratigraphic, in which, with a stronger objective, one can observe the glial tracers that marks cortical neuronal migration, perpendicular on the pial surface.

The paraventricular migration bands are evident in our 18-week-old fetus brain: a rich populated paraventricular reservoir with neuroblasts (fig. 3), from which start thin rays of radial migration (fig. 4) start to the cortex already undifferentiated stratigraphic, in which, with a stronger objective, one can observe the glial tracers that marks cortical neuronal migration, perpendicular on the pial surface.

The same mechanism of development can be observed in the 18-week-old fetus brain: a rich populated paraventricular reservoir with neuroblasts (fig. 3), from which start thin rays of radial migration (fig. 4) start to the cortex already undifferentiated stratigraphic, in which, with a stronger objective, one can observe the glial tracers that marks cortical neuronal migration, perpendicular on the pial surface.

Results and discussions
The paraventricular area is a cellular rich populated making a thick and relatively homogeneous layer of neuroblasts and glial cells. When examining with a stronger objective, a higher density of neuroblasts under the germinal layer and is observed. Deeply, the densely populated cellular layer sends extensions to the cerebral cortex (fig. 1) through the marginal area (the future white matter). Even if the cellular density is lower than in the paraventricular zone, the cells from these columns are similar qualitative with those from the origin area (fig. 2). The cerebral cortex has a homogeneous structure in a parallel sense and also perpendicular on its surface, however there is a cellular hiatus between the thin subpial area and the thick and dense depth layer.
highlighted, but cellular depletion phenomena distributed as diffuse islets located inside it, as well as with a lacunar zone relatively large that separates the paraventricular zone from the marginal zone, paradoxically, richer cellular.

Even if this lacunar zone was crossed by neuroblastic bands glial guided which were starting under bundles with perivascular origin (fig. 7). In the marginal zone, the neuroblasts regrouped in a rich cellular layer were directed to the cortical area under a column form almost parallel but diffusely delimited (fig. 8). The cortex presents a histoarchitectonic stratification better outlined, easily distinguishing 3 or even 4 layers. The deepest, richest cellular zone presented perpendicular bands to the pial surface, guiding the migration and differentiation of the future pyramidal layers.

Conclusions

The epigenetic factors have an involvement with an identical amount at least equal to genetic factors. The treatment of language deficiency can begin from the preconception phase and throughout the pregnancy period, to prevent neurodevelopment disorders.

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