Germinal matrix (GM)

The germinal matrix is a highly cellular and highly vascularized region in the brain from which cells migrate out during brain development. The germinal matrix is the source of both neurons and glial cells and is most active between 8 and 28 weeks gestation.

Ventriculomegaly was found to be characterized by the early (at 22 weeks' gestation) regionalization of glio- and neuroblasts and by the completion of GM reduction at 35 weeks of intrauterine development. In hydrocephalus (HC), GM in all ventricular system regions was preserved and its structure was virtually unchanged at 22 to 40 weeks' gestation.

The found structural changes may be used as diagnostic criteria for VM and HC and to elucidate gestational age in forensic medical practice [1)].

Germinal matrix hemorrhage

see Germinal matrix hemorrhage.

1)
Protsenko EV, Vasil'eva ME, Peretiatko LP, Nazarov SB, Malushkina AI. [Structural changes in the germinal matrix of the brain of fetuses and neonatal infants with ventriculomegaly and congenital hydrocephalus]. Arkh Patol. 2014 May-Jun;76(3):9-12. Russian. PubMed PMID: 25306603.