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Title	Desmoplastic Infantile Ganglioglioma
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Aim	To study the morphologic features and the immunophenotype of the desmoplastic infantile astrocytoma and ganglioglioma. This is a rare tumor of infancy that is characterized by its large size and superficial cortical location and has a favorable prognosis.
Materials & Methods	Two cases of desmoplastic infantile astrocytoma and ganglioglioma presenting in infancy are reported in King Hussein Cancer Center within less than one year. Multiple H&E sections were prepared and examined thoroughly. In addition, ancillary study including immunostains for GFAP, synaptophysin, chromogranin, S100 protein, CD34, and Ki-67 and special stains including reticulin, Masson Trichrome, PAS/PASD were done.
Result	The tumors were microscopically characterized by their sharp demarcation between the cortical surface and the desmoplastic tumour. three distinctive components are identified: the main desmoplastic leptomeningeal component, the poorly differentiated neuroepithelial component and the cortical component. Astrocytes are the sole tumour cell population in one case and the predominant neoplastic population, associated with neoplastic neurons, in the other case. Neoplastic neurons ranged from atypical ganglionic cells to small polygonal cell types. One case contained a population of poorly differentiated neuroepithelial cells with small, round, deeply basophilic nuclei and minimal surrounding perikarya. Both the fibroblastic and the neuroepithelial components were positive for GFAP immunostain. Synaptophysin, Chromogranin and S100 protein immunostains are positive in the neuronal component. Ki67 is 2% in one case but is much higher (up to 15%) in the small population of poorly differentiated neuroepithelial cells in the second case. Reticulin special stain highlighted a pericellular staining pattern. Masson trichrome, PAS/PASD special stains were negative.
Conclusion	Desmoplastic infantile astrocytoma and ganglioglioma (DIA and DIG, respectively) are rare supratentorial brain tumors occurring mostly before the age of 2 years. This tumor is characterized by its massive size that could indicate a pre- or perinatal origin. It has a good prognosis and total excision of the tumor is curative, necessitating no further treatment. Its identification can be achieved by careful histological analysis and is of obvious prognostic significance.