Astrocytic tumor

see Diffuse astrocytic tumor and oligodendroglial tumor.

The 5th edition (2021) update to the WHO classification of CNS tumors has substantially changed the classification of astrocytic tumors, building upon the prior (2016) edition that started to define tumors based on molecular characteristics.

What would previously in most instances have been known as a diffuse astrocytoma or anaplastic astrocytoma or secondary glioblastoma now all come under the one diagnosis, based on the presence of IDH mutation and the demonstrated absence of 1p19q codeletion, which if present would make the diagnosis of an oligodendroglioma.

These IDH-mutant astrocytomas are now graded 2, 3 or 4 based on histological and molecular features, but importantly a grade 4 tumor is no longer a glioblastoma, but rather just an astrocytoma, IDH-mutant WHO CNS grade 4 16.

Glioblastoma is now considered a separate entity and distinct and must be IDH-wildtype, and is therefore discussed separately.

Importantly, the diagnosis of astrocytoma, IDH-mutant is an adult-type diagnosis, distinct from a variety of other pediatric-type diffuse astrocytomas (see astrocytic tumors).

The terms fibrillary astrocytoma and protoplasmic astrocytomas are no longer recognized as separate entities. Although gemistocytic astrocytoma are also no longer recognized as distinct entities, gemistocytic tissue pattern remains a histological feature.