International society of neuropathology-haarlem consensus guidelines for nervous system tumor classification and grading.


Abstract

Major discoveries in the biology of nervous system tumors have raised the question of how non-histological data such as molecular information can be incorporated into the next World Health Organization (WHO) classification of central nervous system tumors. To address this question, a meeting of neuropathologists with expertise in molecular diagnosis was held in Haarlem, the Netherlands, under the sponsorship of the International Society of Neuropathology (ISN). Prior to the meeting, participants solicited input from clinical colleagues in diverse neuro-oncological specialties. The present "white paper" catalogs the recommendations of the meeting, at which a consensus was reached that incorporation of molecular information into the next WHO classification should follow a set of provided "ISN-Haarlem" guidelines. Salient recommendations include that (i) diagnostic entities should be defined as narrowly as possible to optimize interobserver reproducibility, clinicopathological predictions and therapeutic planning; (ii) diagnoses should be "layered" with histologic classification, WHO grade and molecular information listed below an "integrated diagnosis"; (iii) determinations should be made for each tumor entity as to whether molecular information is required, suggested or not needed for its definition; (iv) some pediatric entities should be separated from their adult counterparts; (v) input for guiding decisions regarding tumor classification should be solicited from experts in complementary disciplines of neuro-oncology; and (iv) entity-specific molecular testing and reporting formats should be followed in diagnostic reports. It is hoped that these guidelines will facilitate the forthcoming update of the fourth edition of the WHO classification of central nervous system tumors.

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