

AAN 2017 Meeting
April 2017 in Boston, MA

Session Title

Is this Brain Tumor Genetic? Assessment and Evaluation for Hereditary Causes of Primary Brain Tumors

Session Description

Primary brain tumors are well-known features of several hereditary cancer/tumor predisposition syndromes and have been associated with additional inherited germline mutations as phenotypic spectrums expand and moderately penetrant genes are discovered. Recognizing patterns that should precipitate further evaluation and consideration for hereditary cancer/tumor predisposition syndromes is critical to appropriate clinical management, including differential diagnoses and recommended genetic risk assessment for primary brain tumors.

This session will provide attendees with a crash course on current knowledge of genetic predisposition to primary brain tumors and equip them with the skills needed to properly evaluate patients presenting with a personal or family history of a primary brain tumor. Neurologist Kaleb Yohay will provide a review of the most common types of pediatric and adult primary brain tumors in terms of terminology and classification. Neuro-pathologist Anat Stemmer-Rachamimov will highlight key differences between the molecular profiles of brain tumors resulting from a hereditary predisposition and their sporadic counterparts and review the roles of genes implicated in these syndromes in tumorigenesis. Amanda Bergner and Michelle Jackson, genetic counselor experts in this field, will demonstrate how to assess a patient with a personal or family history of a primary brain tumor, generate pathology-specific differential diagnoses, and facilitate case presentations for practical application in a clinical setting. An overview of available genetic testing for primary brain tumors and data about current utilization will be provided. Attendees will leave the session with infographic tools to utilize in their current practice, and education regarding appropriate referrals.

Learning Objectives:

1. Recognize the most common primary brain tumors for both children and adults, including classes of brain tumor pathology.
2. Generate differential diagnoses of hereditary cancer/tumor predisposition syndromes associated with primary brain tumors according to their pathology.
3. Perform a genetic risk assessment of a patient with a personal or family history of brain tumors.

Speakers

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