Molecular tumor boards: An evolving practice of medicine

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With the debut of Next Generation Sequencing (NGS) in the CLIA labs, additional specialized information has now become available to the multidisciplinary groups involved in individual patient treatment planning and therapy with regards to oncology. Traditionally, these discussions took place in organ-specific Tumor Boards (such as Breast/GI/GU/Head & Neck, etc.). Many institutions have begun to conduct ‘Molecular’ Tumor Boards that allow for in-depth analysis of NGS data. This data allows unprecedented access to the actual biology of the tumor, permitting design of therapies targeting the achilles heel of each tumor, moving away from the practice of blanket toxic therapies. Discussions are focused on “actionable” mutations and specific targeted therapies, possibly through clinical trials. At our institution we have initiated a ‘Precision Medicine’ Tumor Board that goes through this process of NGS data analysis and treatment selection. This lecture will describe the function of the Molecular Tumor Board with actual case examples with a detailed walk-through of the tumor biology and how to match up with newer (clinical trial) treatment options. Some of the limitations that accompany this massive new data source will also be discussed.

Biography

Rajyasree Emmadi is a diplomate of the American Board of Pathology in Anatomic & Clinical Pathology as well as in Molecular Genetic Pathology and is an Associate Professor in the department of Pathology at the University of Illinois at Chicago College of Medicine. She is a member of the Professional Relations Committee of the Association for Molecular Pathology and has participated in efforts to preserve the integrity of the practice of Laboratory Medicine.

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