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AI in Medicine

Future of Healthcare by AI



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Professional Career	<p>Dr. Wan-Shan Li is a pathologist specializing in molecular pathology, gynecologic oncology, and soft tissue tumors. She has played a key role in developing laboratory-developed test (LDT) regulations in Taiwan, serving as an advisor to the Ministry of Health and Welfare and inspector for precision medicine molecular testing certification. As former Secretary-General and current councilor of the Taiwan Society of Pathology, she has extensive experience in molecular diagnostics and quality assurance. Her current research focuses on integrating next-generation sequencing and AI-assisted models to advance precision oncology.</p>	
Speech Title	In depth interpretation and application of NGS	
Abstract(200 words) :		
<p>Next-generation sequencing (NGS) has become an indispensable tool in gynecologic oncology, uncovering key genetic alterations such as BRCA1/2 mutations, homologous recombination deficiency (HRD), and microsatellite instability (MSI). These biomarkers guide treatment strategies including PARP inhibitors and immunotherapy, and have reshaped precision oncology. Yet, clinical implementation of NGS is challenged by sample quality, testing variability, interpretive complexity, and reimbursement limitations.</p> <p>Artificial intelligence (AI) provides new opportunities to address these challenges. By integrating genomic data with clinical records, imaging, and pathology, AI-assisted models can predict HRD or BRCA status, stratify prognosis, and anticipate therapeutic response.</p> <p>This presentation will review the current applications and limitations of NGS in gynecologic oncology, followed by emerging AI-based approaches that complement molecular testing. Together, these advances highlight how the convergence of NGS and AI may accelerate the transition toward truly personalized cancer care.</p>		