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Session Topic: -

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Pediatric Hypertension

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Pediatric hypertension is an increasingly prevalent condition with significant long-term implications, particularly in children with chronic kidney disease (CKD). Recent updates in international guidelines emphasize early diagnosis and risk-based management. This presentation aims to provide a comprehensive overview of the 2023 European Society of Hypertension (ESH) guidelines on pediatric hypertension and to illustrate their clinical relevance through representative case studies. Key updates from the ESH 2023 guidelines were reviewed, including revised definitions, diagnostic thresholds, cardiovascular risk stratification, and treatment strategies. Comparisons with the 2017 AAP guideline were made to highlight differences in classification and therapeutic approach. Four clinical cases of adolescents with hypertension and associated comorbidities were presented to contextualize guideline-based management. The ESH quidelines define pediatric hypertension using age- and sex-specific percentiles for children under 16, transitioning to adult cutoffs (≥140/90 mmHg) for adolescents aged 16 and above. Staging now incorporates hypertension-mediated organ damage (HMOD) and comorbidities. Lifestyle interventions remain first-line therapy, with pharmacologic treatment recommended for stage 2 hypertension, HMOD, or high cardiovascular risk. Case studies emphasized the importance of ABPM, comprehensive metabolic evaluation, and individualized treatment using RAS blockers, calcium channel blockers, and diuretics. The updated ESH guidelines provide a robust framework for diagnosing and managing pediatric hypertension. Early intervention, tailored therapy, and close monitoring are critical for preventing progression to adult hypertension and mitigating long-term cardiovascular and renal risks.

Keywords: Pediatric hypertension, ESH 2023 guidelines, ambulatory blood pressure monitoring, cardiovascular risk, pharmacotherapy