



DYSMETABOLIC NEPHROPATHY: GLOBAL AND REGIONAL PREVALENCE

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Dysmetabolic nephropathy (DMN) in children is a significant and growing health concern worldwide, particularly in regions with environmental pollution and dietary imbalances. While comprehensive global prevalence data are limited, regional studies provide insight into the burden of this condition. Ukraine (Dnipropetrovsk Region): A study involving 297 children diagnosed with DMN found a higher prevalence in girls (72.6%) compared to boys (27.4%). Oxalate nephropathy was predominant, observed in 88.1% of cases. Notably, 73% of these children also had urinary tract infections, and 68.9% were diagnosed with pyelonephritis.

Uzbekistan (Khorezm Region): Research indicated a significant increase in urinary tract diseases among children, rising from 23.7% in 2012 to 46.1% in 2019. A retrospective analysis of 2,976 pediatric cases revealed that 74% had oxalate salts in their urine, highlighting a high prevalence of DMN in this region.

Environmentally Polluted Areas: In regions with industrial or agricultural pollution, DMN has been detected in up to every 2 or 3 children, underscoring the impact of environmental factors on the development of this condition.

Risk Factors and Clinical Implications. DMN is often associated with metabolic disorders such as oxaluria, uraturia, and phosphaturia. These conditions can lead to the formation of kidney stones, urinary tract infections, and chronic kidney diseases if not diagnosed and managed promptly. Children in industrially polluted areas are particularly at risk due to exposure to heavy metals and other environmental toxins.

Conclusion. While precise global prevalence rates of dysmetabolic nephropathy in children are not well-established, regional studies indicate a significant burden, especially in areas with environmental pollution and dietary challenges. Early detection, preventive measures, and targeted interventions are crucial to mitigate the progression of DMN and its associated complications in the pediatric population.



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