

Relationships among Nocturnal Polyuria, Fluid Intake, and Body Composition in Older Adults Receiving Enteral Nutrition in Long-Term Care Hospitals: An Observational Cross-Sectional Study

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Abstract

Nocturnal polyuria (NP) is a condition characterized by excessive urine production during sleep, and its prevalence increases with age. Among older adults requiring nursing care, nighttime diaper changes disrupt sleep, and prolonged incontinence increases the risk of skin damage and urinary tract infections. In addition, nighttime assistance for urination imposes physical and psychological burdens on caregivers and may contribute to institutionalization. Older patients receiving enteral nutrition due to cerebrovascular disease or dementia often have difficulty communicating, and their health status and quality of life (QOL) largely depend on the observation and care provided by medical staff. However, studies on nocturnal polyuria among older adults receiving enteral nutrition are limited, and its underlying mechanisms and related factors remain unclear.

This study comprehensively examined nocturnal urine volume and its related factors among older adults receiving enteral nutrition in long-term care hospitals. Clinical indicators such as urine volume, body composition, blood test results, and nutritional intake were collected, and their interrelationships were evaluated integratively. The findings suggest that nocturnal urine volume may be influenced by multiple interacting factors, including fluid and salt intake, body composition, serum electrolytes, and diuretic use.