

URINE INCONTINENCE (UI) IN EARLY DEMENTIA

A Case Study

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Key Word : Urine incontinence, early dementia, pontine micturition center, neurological lessions

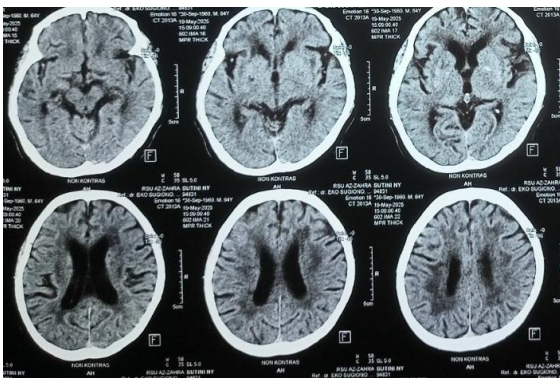
INTRODUCTION

Urinary incontince often suffered by patient with dementia that can affect the individual’s quality of life and caregiver’s burden. Urinary incontinence generally reveal in moderate to severe dementia, but we found it in the patient diagnosed as dementia early stage with mild syptoms. However urinary incontinence in the patient with dementia is caused by many factor and the mechanism is still unclear. The aim of this case study is to find the mechanism of urinary incontinence that may be involve in early dementia.

METHODS

A 65-year-old woman complained of forgetfulness that disrupted her daily activities for the past year. She was diagnosed as dementia three months ago, with a neurological examination within normal limit and an MMSE of 22/30 with impaired memory and cognition aspects. A CT scan of the head without contrast revealed bilateral frontotemporal infarctions

For the past three months, the patient has complained of frequent urinary incontinence, sometimes feeling the urge to urinate but not being able to hold it in before reaching the toilet. She has been consulted with a urologist, and no urinary tract abnormalities have been found.



DISCUSSION

The ability to control urination is influenced by many factors, including how signals are carried from the bladder to the brain, specifically the frontal lobe, basal ganglia, and the pontine micturation center (PMC), located in the dorsal pons, also known as Barrington's nucleus. Detrusor hyperactivity is classically associated with urinary incontinence in dementia.

Neurological lesions in the micturition center can cause neurogenic incontinence. These lesions can occur in patients with dementia..

In Alzheimer's disease, for example, neurological lesions, either plaques or NFTs, or both, are found in the anteromedial frontal cortex.

In certain cases, urinary incontinence can be a symptom associated with dementia itself. For example, in normal pressure hydrocephalus, incontinence is part of a triad of symptoms, along with ataxia and dementia. Vascular dementia can cause damage to the subcortical circuitry of the frontal lobe. Similarly, frontotemporal dementia also causes damage to the cortical inhibitory center for micturition.

Functional urinary incontinence is also often associated with cognitive decline in dementia patients, resulting in decreased motivation and mobility. Cognitive impairments in patients with dementia, such as agnosticism and impaired visuospatial abilities, apraxia, impaired procedural memory, and pharyngeal dysfunction, can also affect the patient's ability to recognize the need to use the toilet, hold urine until the appropriate time, have difficulty finding a toilet, and so on, all of which can lead to incontinence.

CONCLUSIONS

Given the various factors that can cause dementia, patients who experience urinary incontinence complaints need a personal assessment to determine the cause of the incontinence so that the treatment provided will be appropriate.

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