

The Increasing Risk of Dementia in Psoriasis: A Systematic Review and Meta-Analysis

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ABSTRACT

Objective: To systemically summarize and meta-analyze the risk of dementia in psoriasis patients.

Methods: A systematic review was performed in two databases (EMBASE and MEDLINE). The eligible studies had to be a cohort study or a cross-sectional study that compared either the prevalence or incidence of dementia in psoriatic patients, versus comparators without psoriasis.

Results: Of 791 retrieved articles, seven studies met the inclusion criteria and were included into this systematic review and meta-analysis. The risk of incident and prevalent dementia were significantly higher in psoriatic patients, with a pooled risk ratio of 1.16 (95% CI: 1.02-1.33; I² 96%) and 1.36 (95% CI: 1.07-1.72; I² 10%), respectively.

Conclusion: This study revealed a slight increase in both the incidence and prevalence of dementia in psoriasis patients. However, dermatologists should carefully observe and periodically screen psoriasis patients for this comorbidity, especially among those who have symptoms and signs of cognitive impairment.

Keywords: Psoriasis; dementia; cognitive impairment; Alzheimer's disease; comorbidities (Siriraj Med J 2021; 73: 145-154)

INTRODUCTION

Psoriasis is a chronic auto-inflammatory skin disease which affects 0.9-8.5% of the population worldwide.¹ Genetic and environmental factors that activate the immune system play a crucial role in the pathogenesis of psoriasis. The activation of the innate and adaptive immunity resulting in the production of several inflammatory cytokines, such as tumor necrosis factors, interleukin (IL) -12, IL-23, and IL-17, are driven keys in the development of psoriasis and comorbid diseases. Multiple comorbidities have been reported to be associated with psoriasis, such as metabolic syndrome, diabetes mellitus, non-alcoholic steatohepatitis, uveitis, and inflammatory bowel disease.^{2,3}

Dementia is an acquired disorder characterized by a significant decline in cognition involving at least one

cognitive domains. These domains include complex attention, executive function, learning and memory, language, perceptual-motor/visuospatial function, and social cognition. This impairment is severe enough to interfere with patients' daily-life functions. The incidence of dementia globally increased due to the aging population in combination with the growing awareness of this disease.⁴ Dementia can be categorized into two groups depending on the causation and pathophysiology: neurodegenerative and non-neurodegenerative causes. Examples of neurodegenerative dementia are Alzheimer's disease; dementia with lewy bodies; and frontotemporal lobar degeneration, whereas vascular dementia is an example of a non-neurodegenerative dementia. Both neurodegenerative and non-neurodegenerative causes

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