SUBARACHNOID HEMORRHAGE DUE TO VASCULAR CAUSES AND GNATHOSTOMIASIS: CLINICAL FEATURES AND LABORATORY FINDINGS

Waranon Munkong¹, Kittisak Sawanyawisuth²,⁵, Keetapong Pongtipakorn², Kannikar Kongbunkiat², Panita Limpawattana², Vichai Senthong², Jarin Chindaprasirt², Verajit Chotmongkol²,⁶, Jaturat Kanpittaya¹, Pewpan M Intapan³,⁶, Wanchai Maleewong³,⁶ and Amnat Kitkhuandee⁴

Departments of ¹Radiology, ²Medicine, ³Parasitology, ⁴Surgery, Faculty of Medicine, ⁵Research Center in Back, Neck Other Joint Pain and Human Performance (BNOJPH), ⁶Researches and Diagnostic Center for Emerging Infectious Diseases, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand

Abstract. Subarachnoid hemorrhage (SAH) is a serious neurological condition, commonly of vascular etiology. Gnathostomiasis is a common parasitic disease in Thailand and may also cause SAH. The purpose of this study was to find clinical differences between SAH due to these two causes. This was a retrospective study and collected data from medical charts of patients diagnosed with SAH at Srinagarind Hospital, Khon Kaen, during 2009 and 2011. SAH due to vascular causes was diagnosed by cerebral angiogram, while cerebral gnathostomiasis, in which cerebral angiograms were negative, was diagnosed immunologically. Differences in clinical features between the two groups were compared using descriptive statistics. Eighteen patients had SAH due to vascular causes and ten had gnathostomiasis. Most parameters were similar between the two groups. However, the cerebrospinal fluid glucose/plasma glucose ratio in the gnathostomiasis group was significantly higher than in the vascular group (80% vs 16.67%, respectively). In conclusion, cerebrospinal fluid glucose/plasma glucose ratio was significantly higher in SAH patients caused by gnathostomiasis than vascular group and may provide a diagnostic tool for distinguishing between these two etiologies.

Keywords: subarachnoid hemorrhage, aneurysm, arteriovenous malformation, gnathostomiasis