

ABSTRACT

Introduction

Intracranial meningioma is a benign tumor originated from non-neuroepithelial cells, arachnoid cap cells, and has a low progressivity. Epileptic seizure and headache are common early symptoms in intracranial meningioma which may cause in misdiagnosis with primary epileptic seizure. No studies have been conducted to assess the association between seizure preceded with headache in the diagnosis of intracranial meningioma.

Objective

To assess the association between seizure preceded with headache and clinical diagnosis of intracranial meningioma.

Method

This is a cross sectional study with sample consisted of patients with intracranial meningioma and non-meningioma intracranial lesion admitted to Dr. Sardjito Hospital between Januari 2006 and August 2011. Subjects characteristics include age and gender. The dependent variable is intracranial meningioma while the independent variables are seizure and headache, and non-meningioma intracranial lesion is considered as control variable.

Results

A total of 216 (98 males and 118 females) were included in the study, 105 of them were diagnosed with intracranial meningioma. Analysis showed that there were no significant differences in seizure and headache between meningioma patients and non-meningioma patients; however, seizure preceded with headache were more likely in intracranial meningioma compared with non-meningioma (PR 1,198 CI 95% 0,849 – 1,696, $P = 0,341$). Results also indicated a higher proportion of neurological deficits in nonmeningioma patients compared with meningioma patients (PR 0,503 CI 95% 0,367 – 0,688, $P < 0,001$).

Conclusion

Seizure preceded with headache are more likely found in intracranial meningioma than in non-meningioma lesions, although it is not significantly different.

Key words: intracranial meningioma, non-meningioma, seizure, headache, diagnosis.