

## **Incidence, Aetiology and Outcome of Hyponatremia Following Strokes**

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Hyponatremia is a frequently found complication of stroke. Cerebral salt wasting syndrome (CSWS) and Syndrome of Inappropriate Anti Diuretic Hormone secretion (SIADH) are the most common aetiological factors for developing hyponatremia following stroke. The impact of hyponatremia on stroke outcome is poorly understood. Therefore, its effect on stroke mortality was studied. Two hundred and forty six patients with confirmed stroke were prospectively observed throughout the hospital stay in a tertiary referral center in Sri Lanka. Hyponatremia was defined as serum Na<sup>+</sup> level less than 131mmo/l. Differentiation of the CSWS and SIADH was based on physical examination findings and laboratory parameters. Mortality was recorded in all patients and early mortality was defined as the total number of deaths occurred by 70 days. The incidence of hyponatremia in our study population was 19.1% (95% Confidence Interval 14.39-24.58). The majority of patients (24, 51%) were attributed to CSWS. SIADH group comprised of 17 (36.2%) patients and 6 (12.7%) patients had other undetermined causes. Hyponatremia was not associated with in-hospital motility (OR -1.73, 95% CI- 0.71-4.21, P = 0.22). However, it was associated with early mortality (OR- 2.08, 95% CI 1.05-4.1, P=0.034). Kaplan Meier survival curve analysis showed better chance of survival in non-hyponatremic group compared to hyponatremic group (P value =0.02).The incidence of CSWS is higher than the incidence of SIADH. Hyponatremia has a negative impact on mortality of stroke patients..

**Keywords:** Cerebral salt wasting syndrome, Hyponatremia, Mortality, Stroke, Syndrome of inappropriate antidiuretic syndrome

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