

SDC1. Diagnostic criteria for cerebral salt wasting syndrome (CSWS)

Author (year)	Subjects (Sample size)	Age	Diagnostic criteria
Misra (2018)	Tuberculous meningitis patients (n=67) Acute encephalitis (n=77)	9-75 years 18-85 years	Three essential criteria: 1) polyuria: urine output >3 L for at least two consecutive days; 2) hyponatremia: serum sodium <135 mEq/L on two consecutive evaluations 24 h apart; 3) exclusion of secondary causes such as endocrine abnormalities. At least three of five supportive criteria: 1) clinical findings of hypovolemia; 2) persistent negative fluid balance; 3) laboratory evidence of dehydration; 4) CVP <6 cm of water; 5) urinary sodium >40 mEq/L or urine osmolality >300 mOsm/L in two consecutive reports.
Lin (2017)	Encephalitis patients (n=1)	8 years	1) Polyuria; 2) hypotonic hyponatremia; 3) hypovolemia diagnosed based on the signs of dehydration; 4) renal loss of sodium and a negative sodium balance
Leonard (2015)	Neurological patients (review)	0-92 years	1) Brain pathology (defined by neurologic exam, neuro-imaging, cerebrospinal fluid exam, laboratory testing, or electroencephalogram); 2) hyponatremia (at least one simultaneously low serum osmolality; 3) hypovolemia; and 4) urinary salt loss
Gray (2014)	Spontaneous intracerebral hemorrhage patients (n=258)	58.6/ 59.4 years	A low CVP, with diuresis (urine output >250 mL/h) and natriuresis. In the absence of a CVP monitoring device, fluid balance and/or volume status were assessed within 48 hours of the development of hyponatremia. Negative fluid balance >1000 mL negative; neutral to positive fluid balance as negative 1000 mL to positive 1000 mL; and positive fluid balance as >1000 mL positive.
Gritti (2014)	Neurological patients (n=35)	51.51 years	1) Eunatremia (135-145 mEq/L) or hyponatremia (<135 mEq/L); 2) normal or reduced plasma osmolality (<280 mOsm/kg); 3) negative cumulative sodium balance (loss of sodium of >2 mEq/kg).
Sorkhi (2013)	CNS disease patients (n=102)	60.47 months	1) Hyponatremia (serum sodium ≤130 mEq/L); 2) urine output ≥3 mL/kg/hr; 3) urine specific gravity ≥1020; 4) urinary sodium ≥100 mEq/L
Zhang (2010)	Craniocerebral injury patients (n=68)	4-60 years	1) Hyponatremia (<135 mmol/L); 2) increase in urine sodium concentration (>18 mmol/L); 3) large urine volume (>3000 mL/d); 4) low blood volume
Yilmaz (2009)	Patients with meningitis (n=1)	16 years	1) Marked natriuresis with negative sodium and water balance; 2) a hyponatremic and relatively salt-depleted state despite infusions of hypertonic saline solutions; 3) a persistently high fractional uric acid excretion rate throughout the disease course.
Cerdà-E (2008)	Neurological patients	Review	1) Clinical evidence of hypovolemia; 2) serum sodium <135 mEq/L; 3) low plasma osmolality; 4) urine osmolality >100 mOsm/kg; 5) urine sodium concentration usually >40 mEq/L

Singh (2002)	Neurological patients	Review	1) Clinical evidence of hypovolemia; 2) serum sodium <135 mEq/L; 3) low plasma osmolality; 4) urine osmolality >100 mOsm/kg; 5) urine sodium concentration usually >40 mEq/L
Hoorn (2008)	Neurological patients (n=2)	52 and 48 year	1) Marked natriuresis resulting in negative salt and water balances; 2) hyponatremic and relatively salt depleted despite vigorous infusion of a hypertonic solution; 3) ~10% fractional uric acid excretion.
Inatomi (2008)	Aseptic meningitis patients (n=1)	8 years	1) Marked natriuresis resulting in negative salt and water balances; 2) hyponatremic and relatively salt depleted despite vigorous infusion of hypertonic solution; 3) fractional uric acid excretion remaining at 10%
Jiménez (2006)	Patients with acute CNS injury (n=14)	0.1–15 years	1) Evidence of hyponatremia (serum sodium <130 mEq/L); 2) elevated urine sodium (>120 mEq/L); 3) elevated urine osmolality (>300 mOsm/kgH <sub>2</sub> O); 4) excessive urine output (>3 mL/kg/h); 5) a negative 24-hour fluid balance.
Einaudi (2006)	Traumatic brain injury patients (n=52)	8-16 years	1) Urine osmolality/plasma osmolality >1; 2) reduced plasma osmolality (<270 mmol/kg H <sub>2</sub> O); 3) natremia (<137 mmol/l) combined with polyuria (>150% of fluid intake); 4) clinical and biochemical signs of reduced extracellular volume
Uygun (1996)	Patients with neurosurgery due to brain tumor (n=1)	39 years	1) Existence of CNS disease, but with normal liver, renal, thyroid, and adrenal functions; 2) hyponatremia (<135 mmol/L); 3) increase in urine sodium (>20 mmol/L or >80 mmol/24 h); 4) plasma osmotic pressure <270 mmol/L, urine osmotic pressure or blood osmotic pressure > 1; 5) urine volume >1800 mL/d; 6) low blood volume (water intake/excretion rate < 1, pulmonary wedge pressure <8 mmHg, central venous pressure <6 mmHg); 7) systemic dehydration symptoms.

Note: Refer to a supplement list of reference (SDC3) for reference that are not cited in the main text but used in this table.