

**Conclusions** Our results demonstrate a lack of agreement between SjvO<sub>2</sub> and T-SO<sub>2</sub> for monitoring cerebral oxygenation at the occurrence of postoperative cognitive decline. Therefore, we conclude that the two methods are not interchangeable, and the TRS instrument may be useful for obtaining accurate values for cerebral oxygen saturation under CPB.

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**Acetazolamide-induced cerebrovascular reactivity is impaired in sepsis-associated encephalopathy**

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**Introduction** The pathophysiology of sepsis-associated encephalopathy (SAE) is not entirely clear. One of the possible underlying mechanisms is the alteration of the cerebral microvascular function induced by the systemic inflammation. The aim of the present work was to test whether cerebral vasomotor reactivity is impaired in patients with SAE.

**Methods** Patients fulfilling the criteria of clinical sepsis and showing disturbance of consciousness of any severity were included. Nonseptic persons without previous diseases affecting cerebral vasoreactivity served as controls. Transcranial Doppler blood flow velocities were measured at rest and at 5, 10, 15 and 20 minutes after intravenous administration of 15 mg/kg BW acetazolamide. The time course of the acetazolamide effect on cerebral blood flow velocity (cerebrovascular reactivity, CVR) and the maximal vasodilatory effect of acetazolamide (cerebrovascular reserve capacity, CRC) were compared among the groups.

**Results** Fourteen patients with SAE and 20 controls were included. Absolute blood flow velocities after administration of the vasodilator drug were higher among control subjects than in SAE. Assessment of the time course of the vasomotor reaction showed that patients with SAE reacted slower to the vasodilatory stimulus than control persons. When assessing the maximal vasodilatory ability of the cerebral arterioles to acetazolamide during vasomotor testing, we found that patients with SAE reacted to a lesser extent to the drug than did control subjects (CRC SAE: 46.2 ± 15.9%, CRC controls: 29.4 ± 15.8%, *P* < 0.01).

**Conclusions** We conclude that cerebrovascular reactivity is impaired in patients with SAE.

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**Epidemiological analysis of patients with cerebral aneurysms submitted to embolization at São José do Avaí Hospital**

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**Introduction** Cerebral aneurysms affect between 1 and 5% of the adult population and are responsible for significant rates of morbidity and mortality. The treatment of intracranial aneurysms evolved substantially since the introduction of endovascular neurosurgery by Guglielmi detachable coils (GDC) in the 1990s. The ablation overtook a clipping as the initial method in many centers, including Brazil, because of the safety and feasibility of this method.

**Methods** This cohort retrospective study analyses clinical and epidemiological variables. It was conducted from the database of patients submitted to ablation in the neurosurgery department of São José do Avaí Hospital in the period of December 2006 to November 2009.

**Results** We studied 1,504 patients submitted to ablation. There 1,120 were females (74.46%) and 384 males. The average age was 52 years. Hunt-Hess scale prevalence: 1 – 67.88%, 2 – 18.62%, 3 – 8.19, 4 – 4.92%, 5 – 2.32%, and Fisher: 1 – 62.58%, 2 – 7.91%, 3 – 17.08%, 4 – 7.58%. The main risk factors involved in the cerebral vascular accident were: systemic arterial hypertension 40.4% (*n* = 608) and smoking 30.8% (*n* = 463). The arteries more involved were: posterior communicating = 381 (25.33%), median cerebral = 296 (19.61%) and anterior communicating = 254 (16.87%). A total 72.67% of patients presented only one aneurysm (*n* = 1,093) and 27.33% two or more aneurysms (*n* = 411). We observed an occurrence of 1,217 (80.91%) ruptured aneurysms and 287 incidental. The sizes of the aneurysms were: 46.30% standard aneurysms (between 5 and 25 mm), 47.95% smaller than 5 mm and 5.75% giant. The aneurysms were narrow neck in 37.78% of the cases (*n* = 1,082), and large in 14.34% (*n* = 412). Among the 218 events that occurred, there were coils into the vascular lumen in 96 cases (6.38%), bleeding in 58 (3.85%) and others. The materials used were: 334 balloons and 136 stents. Angiographic vasospasm occurred in 178 patients.

**Conclusions** There was a predominance of females for the occurrence of cerebral vascular aneurysmatic accident. The average age was 52 years. Systemic hypertension and smoking showed strong association with the rupture of intracranial aneurysms. The arteries of the previous segment were those that had higher incidence of aneurysms. More than one-half of the patients did not have complications during the procedure. Embolization of cerebral aneurysms was revealed to be a low lethality method.

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**Frequency/prevalence analysis of risk factors on aneurysmal subarachnoid hemorrhage**

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**Introduction** Subarachnoid hemorrhage (SAH) is a catastrophic clinical event in which 2/3 of spontaneous SAH are characterized by rupture and bleeding of cerebral aneurysm.

**Methods** After institutional approval and informed consent, this prospective observational study took place from April 2008 to November

FACTORS	Frequency% (n)	(IC95%)
Average Age	55,3	*****
Skin Color		
White	46,2% (54)	36,9 - 55,6
Black	24,8% (29)	17,3 - 33,6
Brown	29,1% (34)	21,0 - 38,2
Gender		
Female	73,4% (94)	64,9 - 80,9
Male	26,6% (34)	19,1 - 35,1
Dyslipidemia		
Yes	10,9% (14)	6,1 - 17,7
No	89,1% (114)	82,3 - 93,6
Arterial Hypertension		
Yes	72,7% (93)	64,1 - 80,5
No	27,3% (35)	19,8 - 35,9
Diabetes Mellitus		
Yes	14,8% (19)	9,2 - 22,2
No	85,2% (109)	77,8 - 90,8
Alcoholism		
Yes	12,6% (16)	7,4 - 19,7
No	87,4% (111)	87,4 - 92,6
Smoking Habit		
Yes	44,5% (57)	35,7 - 53,6
No	55,5% (71)	46,4 - 64,3
Sedentary		
Yes	25,8% (33)	18,5 - 34,3
No	74,2% (95)	66,6 - 81,5
Obesity		
Yes	11,7% (15)	6,7 - 18,6
No	88,3% (113)	81,4 - 93,3
Oral Contraceptive Method *		
Yes	5,3% (5)	1,7 - 12,0
No	94,7% (89)	88,0 - 98,3

\* Analysis is obtained only for female gender population

Figure 1 (abstract P337).