CO2 reactivity was tested in patients with transcranial Doppler sonography (TCD) and endtidal CO2 measurements after an average time interval of ten months after subarachnoid haemorrhage (SAH). After deliberately changing breathing there was a significant change in endtidal CO2 and in flow velocities in all three examination groups. Comparing 27 patients with SAH and 5 patients treated for incidental aneurysms and 20 patients without cerebrovascular disease there were no significant differences in CO2 reactivity. Furthermore, there were no right to left differences. In 12 patients with vasospasm, two of them treated by percutaneous transluminal angioplasty for delayed ischaemic deficits, CO2 reactivity was normal at the time of investigation. Furthermore, normal CO2 reactivity was found in patients after SAH and surgery for ruptured aneurysms regardless of the severity of the SAH [1].

1)
Schmieder K, Jarus-Dziedzic K, Wronski J, Harders A. CO2 reactivity in patients after subarachnoid haemorrhage. Acta Neurochir (Wien). 1997;139(11):1038-41. Review. PubMed PMID: 9442217.