**Introduction:**
Stress-induced cardiomyopathy after subarachnoid hemorrhage (SAH) is a life-threatening condition associated with poor outcome. Regional wall motion abnormalities (RWMA) is a frequent finding, however, assessment of RWMA is known to be difficult. In the present study we hypothesized that global and regional longitudinal strain (GLS and RLS) assessed with speckle tracking echocardiography can detect myocardial dysfunction indicated by increased levels of the cardiac biomarker troponin (TnT).

**Methods:**
This prospective study comprised 71 patients with SAH. The TnT was followed daily from the admission up to 3 days post-admission and elevated TnT was defined as > 80 ng/l. A transthoracic echocardiography examination was performed within 48 hours after the hospitalization. The peak GLS was determined using the three apical projections and presented as the mean of the 18 segments. Reduced GLS was defined as > -15% and reduced RLS was considered present when segmental strain was > -15% in > 2 adjacent segments.

**Results:**
The TnT was increased in 17 (24%) patients. The TnT (ng/l) level in patients with RWMA (n=12) (median, (25% and 75% percentile)) was 648 (338-750), in patients with reduced GLS (n=12) 502 (107-750) and in patients with reduced RLS (n=42) 40 (10-216) respectively. Among patients with normal TnT had one patient RWMA (2%) and three patients reduced GLS (6%). The Table shows the diagnostic performance regarding detection of patients with increased TnT.

**Conclusion:**
The presence of RWMA and reduced GLS is a relatively common finding in patients following SAH and indicate markedly increased levels of TnT. Normal TnT reduces the likelihood of LV systolic dysfunction. Assessment of RLS by speckle tracking is not helpful in the assessment of patients with SAH.