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***Abstracts will be considered for both poster and platform presentations***

***Stroke/Neurovascular***

Poster presentation

**Introduction:** In the setting of mechanical thrombectomy for emergent large vessel occlusion (ELVO), we have for the first time developed a protocol to collect and evaluate blood immediately distal and proximal from the removed intracranial thrombus. These samples provide a unique resource in evaluating acute changes in acid/base and electrolyte concentrations at the time of ischemic stroke. The purpose of this study is to compare acid/base and electrolyte differences obtained proximal and distal to the occluded intracranial thrombus in acute ischemic stroke patients.

**Methods:** We developed the BACTRAC protocol: an IRB-approved tissue banking strategy for ELVO (clinicaltrials.gov NCT03153683). We compared arterial blood gases (ABG) of blood distal versus proximal to the thrombus during thrombectomy. Comparisons were evaluated by Paired Samples T-Tests ( $p < 0.05$ ).

**Results:** We analyzed the first 24 subjects (age =  $65 \pm 0.54$ , 11 males) in the BACTRAC registry. Preliminary results demonstrate that, while pH is nonsignificant, distal blood in relation to proximal blood showed significantly lower oxygen ( $p = 0.010$ ), carbon dioxide ( $p = 0.001$ ), bicarbonate ( $p = 0.002$ ), ionized calcium ( $p = 0.001$ ), and potassium ( $p = 0.001$ ). Sodium concentration was significantly higher ( $p = 0.002$ ) in distal blood. These results suggest alterations occurring intravascularly during ischemia.

**Conclusion:** These findings provide a novel insight into the pathology of large vessel stroke in humans, particularly in regard to identifying acute changes in acid/base balance and electrolyte concentrations that occur during stroke.