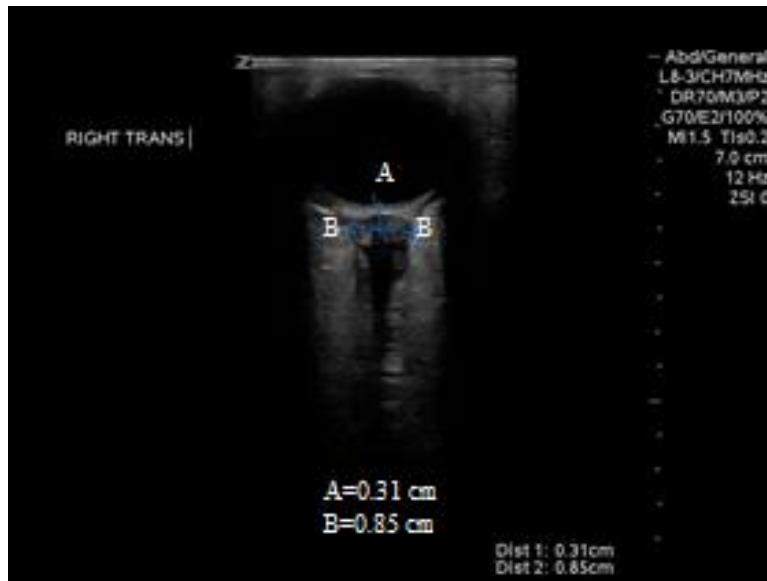


**Supplemental Figure 1:** Normal ultrasound image depicting the optic nerve sheath (Left), and the same image with anatomical landmarks highlighted (Right). A = Distance behind retina, B = Measurement of the optic nerve sheath



**Supplemental Figure 2:** Abnormal ultrasound image obtained from a patient with anoxic brain injury depicting distention of the optic nerve sheath. A = Distance behind retina, B = Measurement of the optic nerve sheath

**Supplemental Table 1.** Mean values of optic nerve sheath diameter (in cm) by Probe Orientation and Injury type

|                                    | Ischemic Stroke   | Stroke with TPA   | Intracerebral hemorrhage | Total             | p-value |
|------------------------------------|-------------------|-------------------|--------------------------|-------------------|---------|
|                                    | Mean (95% CI)     | Mean (95% CI)     | Mean (95% CI)            | Mean (95% CI)     |         |
| Left Eye Transverse First ONSD     | 0.54 (0.52, 0.56) | 0.54 (0.51, 0.57) | 0.59 (0.57, 0.61)        | 0.56 (0.54, 0.57) | 0.040   |
| Left Eye Transverse Second ONSD    | 0.56 (0.53, 0.60) | 0.55 (0.51, 0.60) | 0.59 (0.56, 0.62)        | 0.57 (0.55, 0.59) | 0.213   |
| Left Eye Longitudinal First ONSD   | 0.55 (0.52, 0.57) | 0.54 (0.51, 0.57) | 0.59 (0.57, 0.62)        | 0.56 (0.55, 0.58) | 0.006   |
| Left Eye Longitudinal Second ONSD  | 0.57 (0.53, 0.60) | 0.55 (0.52, 0.58) | 0.59 (0.56, 0.62)        | 0.57 (0.55, 0.59) | 0.254   |
| Right Eye Transverse First ONSD    | 0.55 (0.53, 0.58) | 0.53 (0.51, 0.56) | 0.60 (0.57, 0.63)        | 0.56 (0.55, 0.58) | 0.001   |
| Right Eye Transverse Second ONSD   | 0.57 (0.53, 0.60) | 0.54 (0.49, 0.58) | 0.59 (0.55, 0.63)        | 0.57 (0.55, 0.59) | 0.132   |
| Right Eye Longitudinal First ONSD  | 0.56 (0.53, 0.58) | 0.54 (0.51, 0.56) | 0.59 (0.57, 0.62)        | 0.56 (0.55, 0.58) | 0.003   |
| Right Eye Longitudinal Second ONSD | 0.55 (0.51, 0.59) | 0.55 (0.50, 0.59) | 0.60 (0.56, 0.63)        | 0.57 (0.54, 0.59) | 0.099   |