UT Southwestern Department of Radiology

Protocol Name: CTA Bow Hunter's Syndrome
Epic Button: CTA Bow Hunter's Syndrome
Orderable Name: CT ANGIOGRAM BRAIN AND NECK W AND/OR WO IV CONTRAST
Adult Only
CTDIvol < 120 mGy
Indications: Bow Hunter's Syndrome / Rotational Vertebral Artery Occlusion (rare form of vertebrobasilar insufficiency syndrome)
 # Acquisitions: 2
Active Protocol

Oral Contrast: None

IV Contrast: Link to Contrast Information
Rate (ml/sec): 4
Volume (ml): 70
IV Access:
Inject on the right when feasible.
Power injection: 20g or larger in large vein (prefer AC fossa or forearm)
Notes:
Saline test injection: 10 sec @ injection rate.
Saline chase: 40ml.

Bolus tracking @ top of arch, ROI in posterior descending aorta
Threshold: 120 HU

Each acquisition should be performed with a separate bolus of contrast.

Other Contrast: None

Airway

Other Notes
No habitus specific kVp adjustment.
- Confirm the head position for both symptomatic and neutral acquisitions with the provider's order. If there is a discrepancy, contact the provider for clarification before proceeding.
- Dual-energy CT is preferred for this exam.
- Schedule exam in a facility with rapid response access.
- For order requests involving more than two positions, or positions not including the neutral head position, please contact the provider. If confirmed to include more than two positions, adjustments to contrast bolus timing, contrast dose, and field of view may be necessary.

Last Change: 10/1/2025 **Last Review:** 10/23/2025 **Links:** Bolus Tracking ROI

Special Instructions	Send volume to TeraRecon Send hi/low kVp to SyngoVia Acquire with head in the symptomatic position (the position that provokes symptoms)	Send volume to TeraRecon. Send hi/low kVp to SyngoVia. Acquire with head in the neutral position (no symptoms), standard CTA positioning.
Acq # / Series Name	1 Symptomatic	2 Neutral
Phase Timing	Bolus tracking (See Notes)	Bolus tracking (See Notes)
Acquisition Protocol		
Coverage	Bottom of aortic arch thru vertex	Bottom of aortic arch thru vertex
FOV	Whole head and neck	Whole head and neck
Algorithm	Soft Tissue	Soft Tissue
Axial Recons	Volume	Volume
Other Planar Recons	1 mm sagittal and coronal	1 mm sagittal and coronal
MIP Recons	24x4mm Axial, 5x3mm coronal, 5x3mm sagittal	24x4mm Axial, 5x3mm coronal, 5x3mm sagittal
†DECT Philips		
†DECT Siemens	Bone removal	Bone removal
†PC-CT Siemens		

† When dual energy (DE) or photon counting (PC) CT is used