1. Supine position with slight extension and head turned to contralateral side
2. TCD, EEG, SSEP monitoring and Foley catheter – Timeout, preoperative antibiotics, ASA, instructions to keep patient normotensive
3. Confirm location of the bifurcation on the cerebral angiogram
4. Mark incision from the angle of the mandible to just above the sternal notch along the anterior border of the SCM muscle
5. Sterile prep and drape – drape ear into the field
6. Infiltrate skin incision with 1% lidocaine with epinephrine
7. Make skin incision with skin knife – absolute hemostatis is crucial due to heparin administration
8. Shaw knife to split the subcutaneous tissue and platysma
9. Weitlaner retraction
10. Locate SCM muscle and proceed with blunt dissection along the medial border to the carotid sheath
11. Sharply open the carotid sheath and use 4-0 neurolon to tack up
12. Identify and avoid manipulation of the hypoglossal nerve
13. Dissect proximally along the CCA and expose the ICA and ECA
14. The posterior belly of the digastric belly may be split and the facial vein (landmark for carotid bifurcation) ligated to provide adequate
 exposure
15. Position using tack-up sutures so that the ECA branches are pointing medially
 (Appropriate orientation helps avoid unnecessary sacrifice of branches)
16. Plaque is visualized and GENTLY palpated
17. Once orientation is correct, place vessel loops and Rommel tourniquet (tourniquet and extra loop around ICA, ECA, CCA) – elevate BP
18. ECA vessel loop is placed distal to the superior thyroid artery but proximal to the other branches
19. Shunts (Sundt/Bard?) are sized and prepared with heparin (flush with heparin and clamp in the center)
 - mark the middle of the shunt to know if it has moved
20. Temporary clips for the CCA, ECA, ICA, and superior thyroid artery as sized
21. 5000 Units of heparin is given (50-100 U/kg, maximum dose of 7,000 units)
22. 0.5cc of 0.25% Lidocaine is used to infiltrate the carotid body/carotid sinus nerve at the bifurcation (Hering’s nerve) – decrease lability of
 blood pressure
23. Clamp vessels in this order: 1. ICA, 2. CCA, 3. ECA, 4. superior thyroid artery
24. Check TCD, EEG, SSEP monitoring for any change – if any change in EEG and patient doesn’t respond to HTN, use shunt
25. Check ACT [normal = 70-120 seconds; on heparin = 180 to 240 seconds (ie. therapeutic **range**)]
26. Arteriotomy is performed on the lateral side of vessel with a no. 11 blade and extended with Pott’s scissors (from CCA to ICA)
27. The plaque is carefully dissected
28. The plaque is sharply excised
29. Tack-up sutures are placed from the plaque to the artery (6-0 prolene)
30. Floaters are carefully removed
31. ICA/ECA/CCA are carefully inspected
32. Heparinized saline irrigation
33. Backflow from ICA, CCA, ECA, and superior thyroid artery is checked by removing clips temporarily
34. Closure of vessel with a 6-0 running prolene (patch determination)
35. Note duration of clamp occlusion
36. Remove clamps in the following order: ECA, CCA, ICA, superior thyroid artery
37. Check TCD, EEG, SSEP monitoring for any change
38. Obtain careful hemostasis
39. Irrigate field
40. JP drain – secure with 3-0 nylon
41. Platysma reapproximated with 3-0 interrupted vicryl
42. Subcutaneous skin closure with 3-0 interrupted vicryl
43. Subcuticular skin closure with 4-0 vicryl
44. Steri-strips and sterile dressing
45. Examine patient once awake – no post-op CT head, unless there is a neuro change