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