



WHY I DON'T DO CERVICAL APPROACH.

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Introduction



- Cervical approach has been proposed by several vascular surgeons used to perform carotid endarterectomy as a possible and safe way to perform carotid stenting.
- Although , direct puncture of carotid artery was used , as an access to perform carotid arteriography in the early days of the procedure this access was abandoned for its dangerousness and its side effects



BEFORE

Several contra-indications and limitations



- Local :
 - Immobility of the Neck
 - Hostile Neck
 - Diseased common Carotid
 - Low Common Carotid bifurcation
 - Intra-cranial stenosis
 - Long Internal carotid stenosis extending to the bifurcation
 - Impossibility to compress the neck...

Several contra-indications and limitations



- General:
 - Respiratory disease
 - Anti-platelet therapy and risk of bleeding
 - Anxiety
 - General anesthesia
 - Risk of vomiting...



DURING

- No dedicated devices :
 - Introduction : Short introducers with tip markers
 - Protecting devices
 - Adapted stents & Balloons
- Impossibility to use reversal of flow to protect
- Limited number of radiologic views and radiologic evaluation during procedure

- The obligation of general anesthesia to avoid the intolerance, anxiety and motion of the patient.
- The impossibility to perform simultaneous procedure: Brachio-cephalic trunk, Vertebral, Bilateral carotid

Complications & Side effects



- Embolisation of plaque from the common carotid artery puncture site
- Dissection of common carotid
- Cervical hematoma with compression of respiratory ways requiring tracheotomy
- Local infection with cervical infection
- AV fistulae

All these complications are difficult to treat and to prevent and are still present with the actual technology

- The impossibility in case of complication of carotid stenting to manage them with the use of IIb IIIa inhibitors or thrombolytic drugs because of the high risk of bleeding.
- In case of delayed complications , the obligation to us the femoral route to solve them (Dissection...)



AFTER



- the femoral approach and in case of failure the radial approach is the pathway to perform carotid stenting.
- Briefly, when compared to cervical approach, the superiority of femoral approach is due to :
 - Dedicated devices,
 - Impossibility of proximal with reverse flow protection, treatment of ostial common carotid lesion, use even in diseased common carotid artery, high or low carotid bifurcation,
 - Hostile neck, impossibility of long stenting including the common carotid,
 - Easier treatment of thrombotic complication ,
 - Absence of general anesthesia.

- We consider that cervical approach is justified
 - in case of impossibility or dangerousness of femoral or radial approach
 - in case of diseased thoracic aorta or failure of femoral access

- Furthermore cervical approach should be reserved or practiced by vascular surgeons possibly in the operating room, in order to convert to surgery when and if needed.

Cervical approach



- Development of specific closing devices and embolic protection devices for this access should enlarge its applicability .