

Malperfusion in aortic dissection


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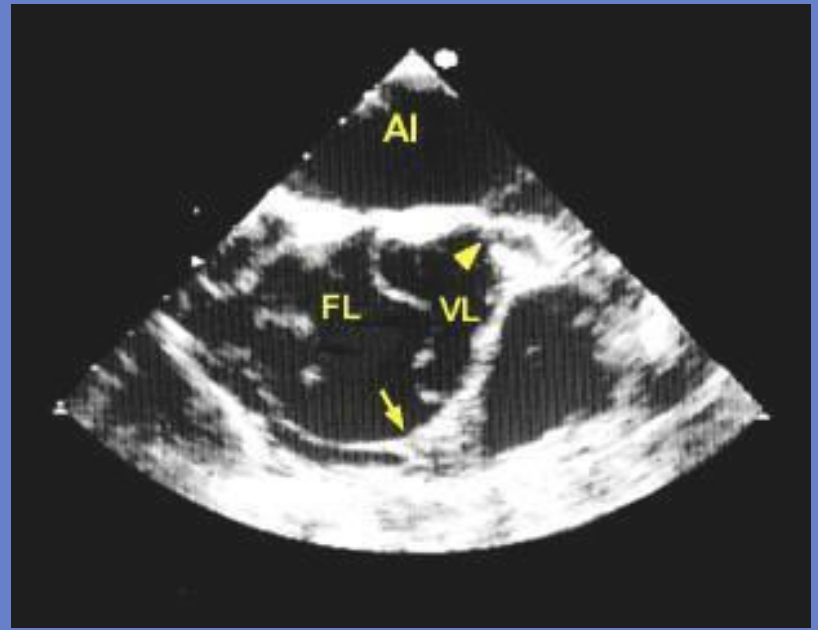
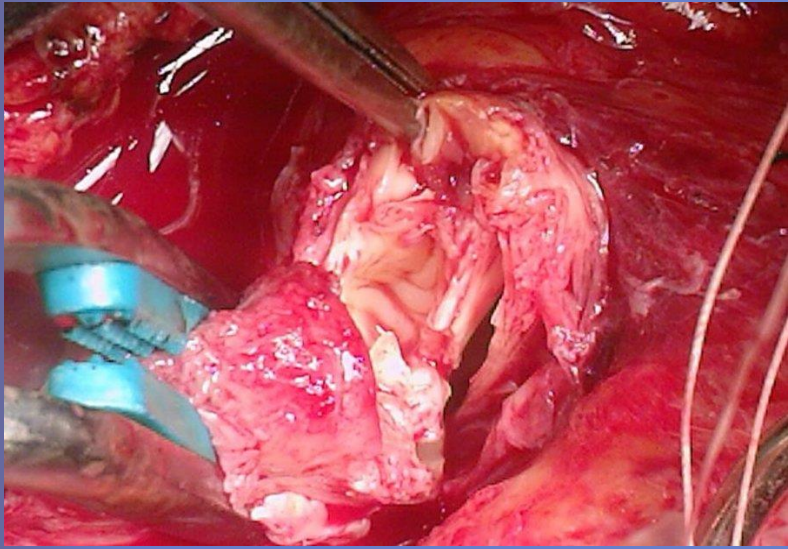
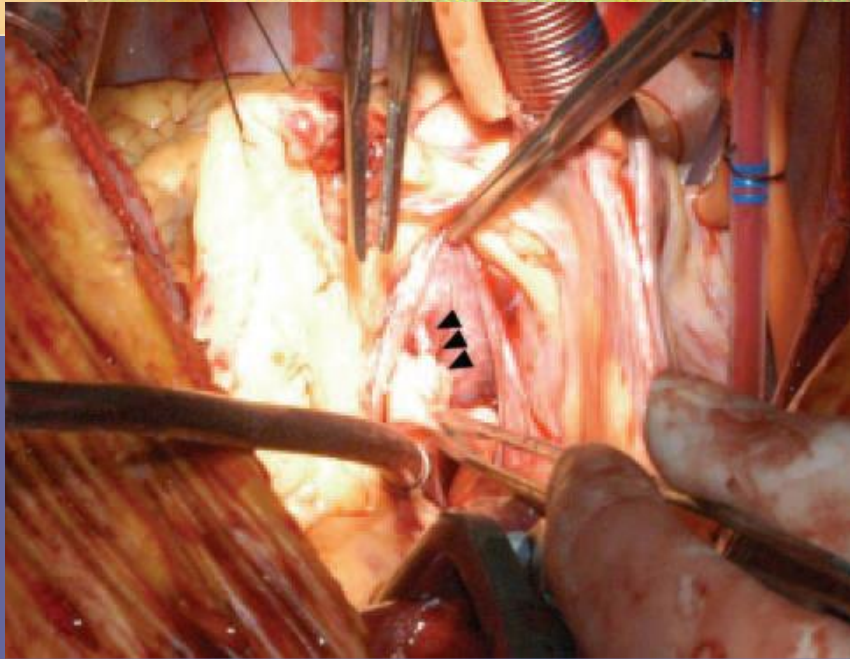
Malperfusion syndrome is the second leading cause of death from acute dissection, after aortic rupture.

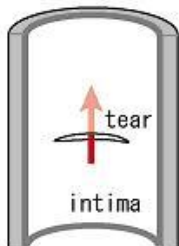
Two types of coronary artery involvement must be considered. The first is acute proximal coronary narrowing or occlusion as a result of the dissection process. The second is the possible presence of chronic atherosclerotic CAD



Chronic CAD is seen in about 25% of patients
presenting with aortic dissection

- In light of its accuracy, safety, speed, and convenience, TEE has become the procedure of choice in many institutions

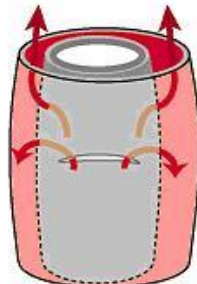




onset of dissection




extension of dissection



K. Orshashi
progression of dissection

Aortic dissection



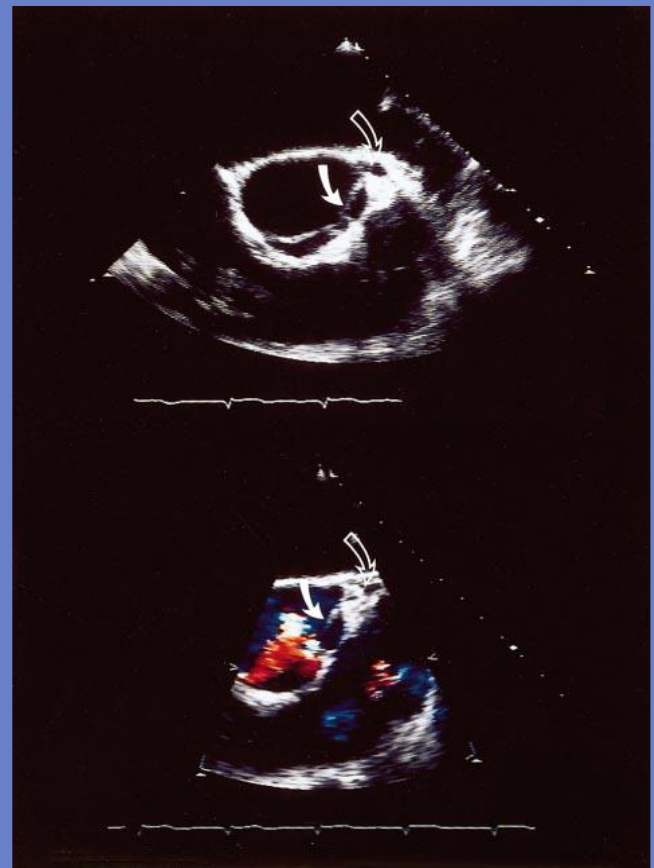


Rapid noninvasive diagnosis and surgical repair of acute ascending aortic dissection: Improved survival with less angiography

Robert J. Rizzo, MD,, Lawrence H. Cohn, MD et al

J Thorac Cardiovasc Surg 1994;108:567-575

- ***In a collective review of 963 patients with aortic dissection who did not receive surgical treatment, the mortality was 38% within 1 day and 70% within 1 week; 86% of deaths were due to aortic rupture.**
- ****Chronic CAD is more difficult to evaluate at operation, but the opened aorta does provide access to the coronary ostia, through which the coronary arteries can be probed. Epicardial palpation can also help localize chronic CAD**






The role of coronary angiography in acute type A aortic dissection

Reza Motallebzadeha, Divna Batasa, Oswaldo Valenciaa, Venkatachalam ChandrasekaranJohn Smitha, Stephen Breckerb, Marjan Jahangiria

- **It is difficult to decide which group of patients might benefit from pre-op coronary angiography**
- **Coronary angiography did not affect incidence of CABG and was not associated with improvement hospital survival**

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- **CT (contrast)** :sensitivity 90%, specificity 85%
 - **TTE**: sensitivity 80%, specificity 90%
 - **TEE**: sensitivity 98%, specificity 99%
 - **MRA**: highest sensitivity and specificity for detection of all forms of dissection (95-100%)

Proximal aortic dissection with coronary malperfusion: Presentation, management, and outcome

Eugenio Neri, Thomas Toscano, Ugo Papalia, Giacomo Frati, Massimo Massetti, Gianni Capannini, Enrico Tucci, Dimitri Buklas, Luigi Muzzi, Luca Oricchio and Carlo Sassi
J Thorac Cardiovasc Surg 2001;121:552-560

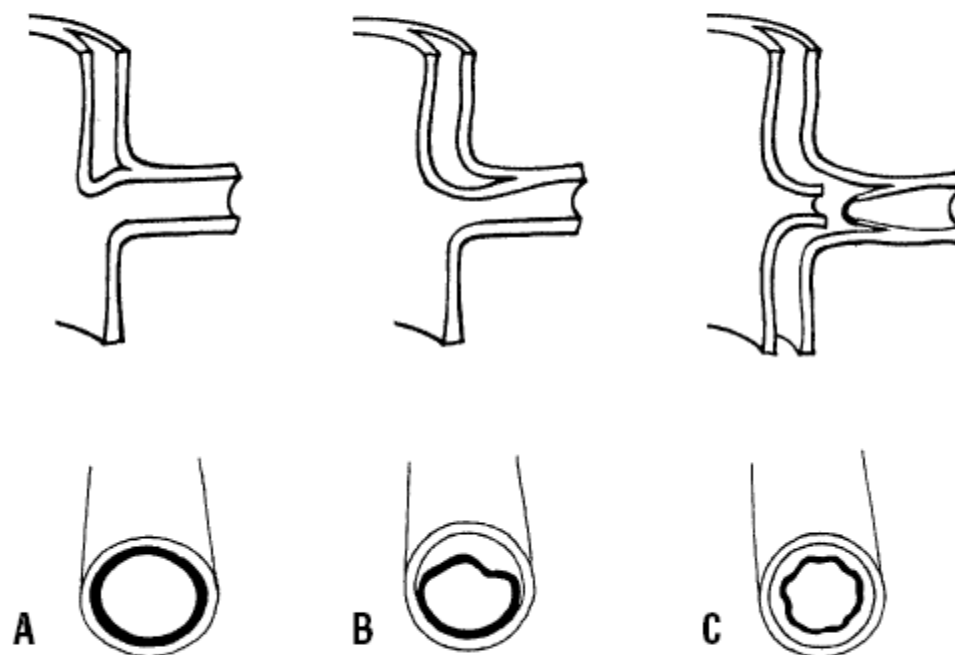


Fig 1. Three main types of coronary lesion due to proximal dissection: type A, ostial dissection (A); type B, dissection with a coronary false channel (B); type C, circumferential detachment with an inner cylinder intussusception (C).

Repair for TYPE A lesions

The Journal of Thoracic and
Cardiovascular Surgery
Volume 121, Number 3

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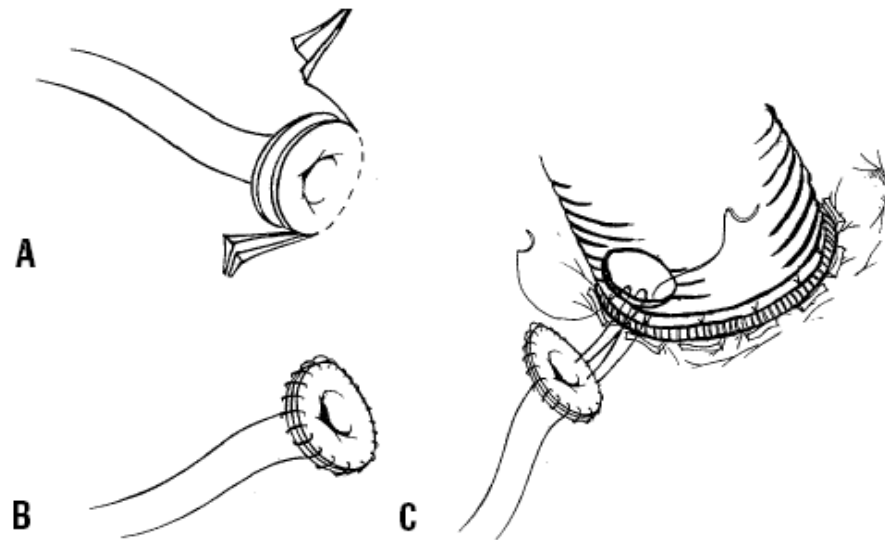
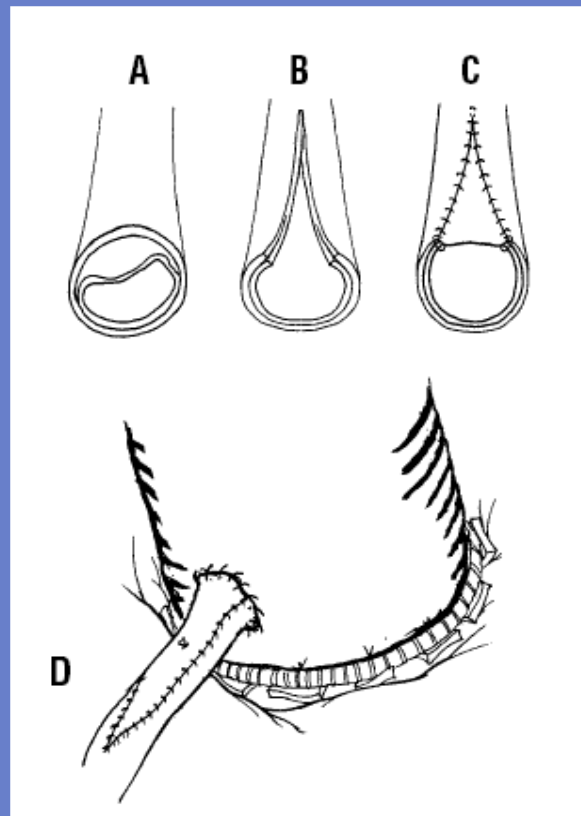


Fig 2. When the dissection reaches the ostium, without disrupting the coronary vessel (type A), the coronary ostium is excised in button form, with a 4-mm margin of the surrounding aortic wall (A). The dissected layers around the ostium are then conjoined with gelatin-resorcin-formalin glue and an over-and-over 6-0 suture (B). The ostial button then is anastomosed to the tube graft without torsion or tension (C).

Repair for TYPE B



Repair technique for Type C

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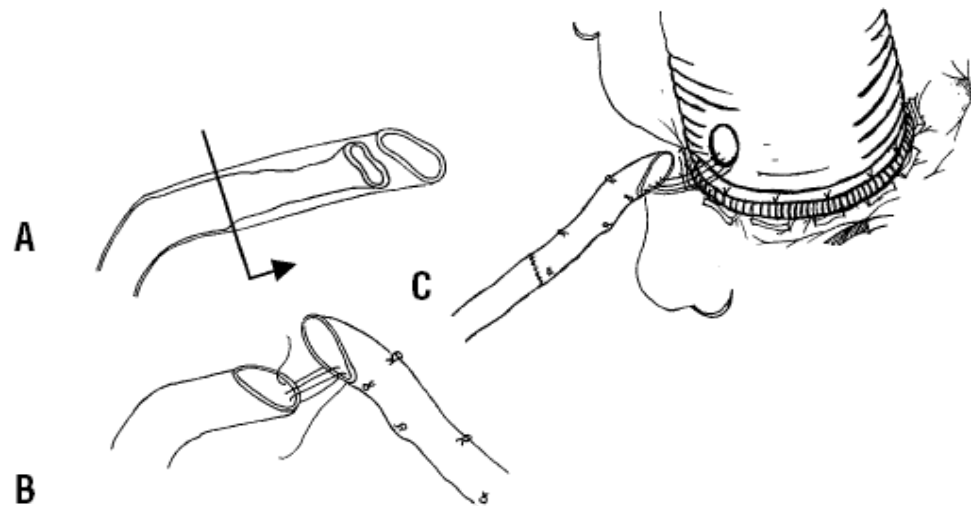


Fig 4. In the presence of coronary intussusception (type C), the coronary artery is transected in a nondiseased zone (A) and saphenous vein reconstruction of the vessel is performed with an end-to-end anastomosis (B). The repaired artery is then anastomosed to the aortic graft (C).