

Minimally aortic valve surgery



The image shows the cover of a brochure for the IV Congresso Nazionale di Ecocardiochirurgia. The cover features a collage of medical images, including a heart, a person in a lab coat, and a computer monitor. The text on the cover includes the title 'IV CONGRESSO NAZIONALE DI ECOCARDIO CHIRURGIA', the dates 'MILANO 10-12 MARZO 2010', and the sponsors 'Con il patrocinio di SIEC - ANMCO - SICCH'. It also lists the President of Honor (Antonio Pozzani), Presidents (Cosaro Fioronisi and Ettore Vitali), and Directors (Antonio Mantoro and Giuseppe Torali). A small blue box in the bottom left corner indicates 'Sono stati assegnati a. 15 crediti ECM'.

**IV CONGRESSO NAZIONALE DI
ECOCARDIO
CHIRURGIA**

MILANO 10-12 MARZO 2010
Con il patrocinio di SIEC - ANMCO - SICCH

PRESIDENTE ONORARO
Antonio Pozzani

PRESIDENTI
Cosaro Fioronisi
Ettore Vitali

DIRETTORI
Antonio Mantoro
Giuseppe Torali

Sono stati assegnati
a. 15 crediti ECM

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“We must tailor the operation to the patient and not the patient to the operation”

Denton A.Cooley

MINI-AVR Upper Ministernotomy

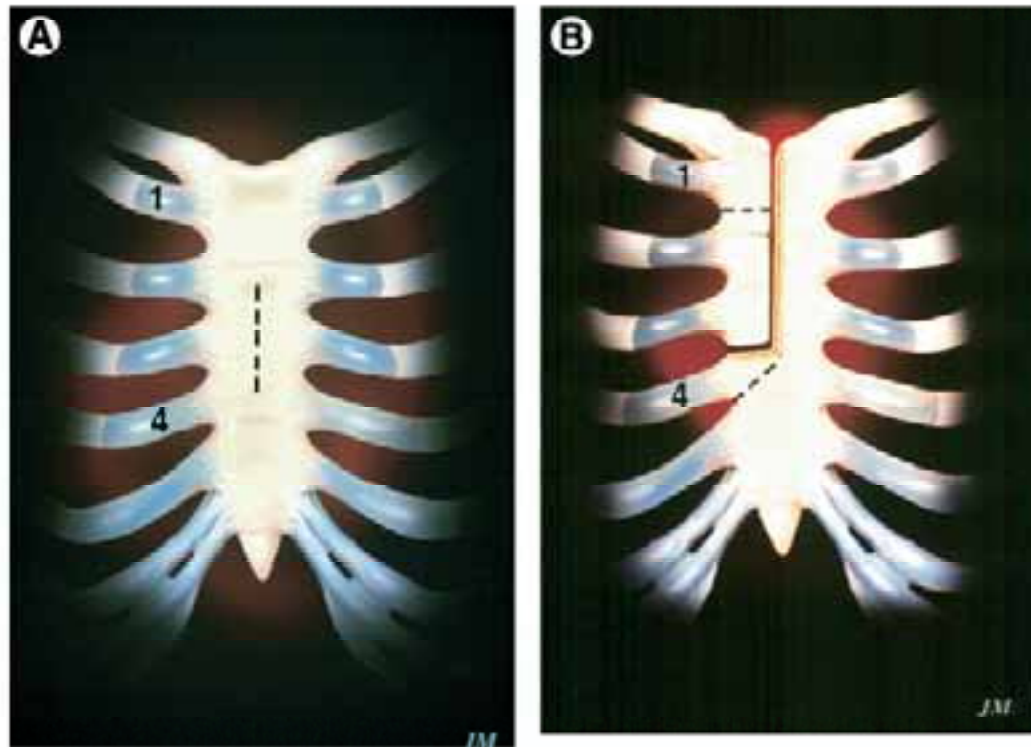


Figure 3 Minimally invasive "J" incision. (A) Skin incision. (B) Sternal incision options. (Color version of figure is available online at <http://www.scmthorcardiovascsurg.com>.)

MINI-AVR Upper Ministernotomy

- **Advantages**
- **More options-AVR Root replacement**
- **Direct cannulation ??**
- **Disadvantage**
- **More invasive, greater wound burden**
- **More concern for sternal healing**
- **“Moderately less invasive”**

Eur J Cardiothorac Surg 1999;16:S84-S85

Minimally aortic valve surgery avoiding sternotomy

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- From August 1996 to August 1998, seven patients were operated through a **right anterior minimally thoracotomy** .

- Minimally invasive valve surgery, although still in its pioneer era, can open new horizons in cardiac surgery. Following that trend we started aortic valve surgery through a right anterior minithoracotomy using a novel approach

This access produces an operative view adequate to safely perform aortic valve surgery. Therefore, removal of ribs or cartilage fragments is not necessary, which results in a less traumatic and less painful approach...

Mini-AVR right intercostal approach

- ***Advantages***
- No sternal disruption, thus significant less wound burden
- Exposure equal to open for AVR
- ***Disadvantages***
- *Currently not applicable for patient needing root replacement*
- ***NOT APPLICABLE FOR ALL PATIENTS***

Mini-AVR right intercostal approach

Patient selection



Mini-AVR right intercostal approach

Evaluation

- Routine preop for AVR
- **C.T. Angiography mandatory for all patient**
- Ascending Aorta
- Aortic anulus

Mini-AVR right intercostal approach

Venus cannulation

- femoral-giugular veins
- percutaneous

Arterial cannulation

- - direct aorta
- Femoral artery cannulation is not necessary

Complication of femoral artery cannulation

- **Requiring additional incision**
- **-dehiscence/infection**
- **-lymphocele**
- **Retrograde aortic dissection**
- **Atheroembolism**
- **Iliac artery dissection/perforation**
- **Femoral artery thrombosis**



Dr. Diego ORNAGHI
UO di Cardiochirurgia



Conclusions

Every new technique is introduced after a period where enthusiasm alternates with disappointment

The learning curve is the parameter which measures the difficulties of a technique and its reproducibility

Indeed minimal invasive cardiac surgery is not a simple technique, but exchange of experiences helps in overcome obstacles

After an initial period of learning this surgery become reproducible with good results and a limited rate of complications