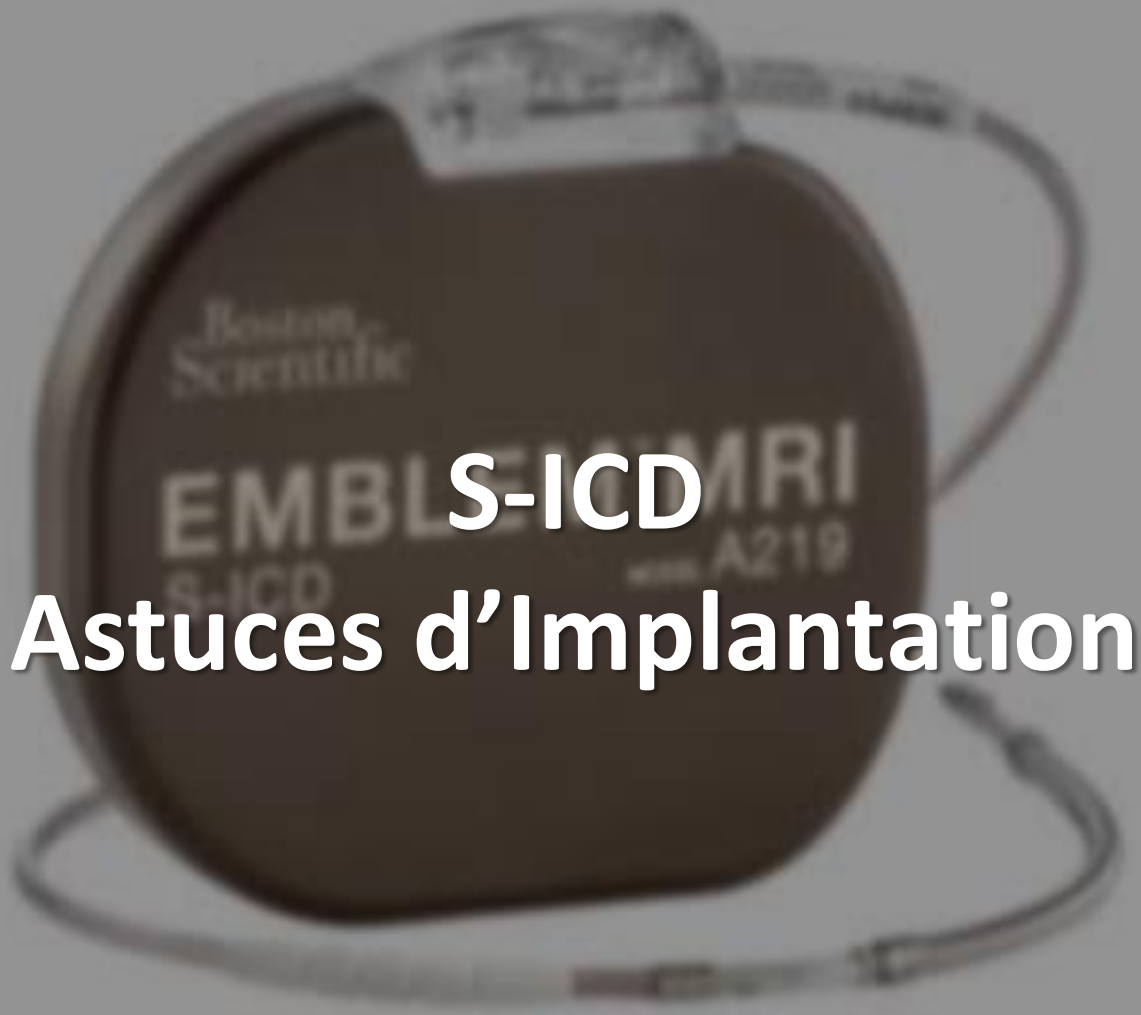
Fondation de la maison du Diaconat de Mulhouse

Hôpital Albert Schweitzer
Pôle de Santé Privé du Diaconat Centre Alsace



S-ICD
Astuces d'Implantation

Dr SORREL Jérémie

Service de Cardiologie, Clinique du Diaconat, Mulhouse, France

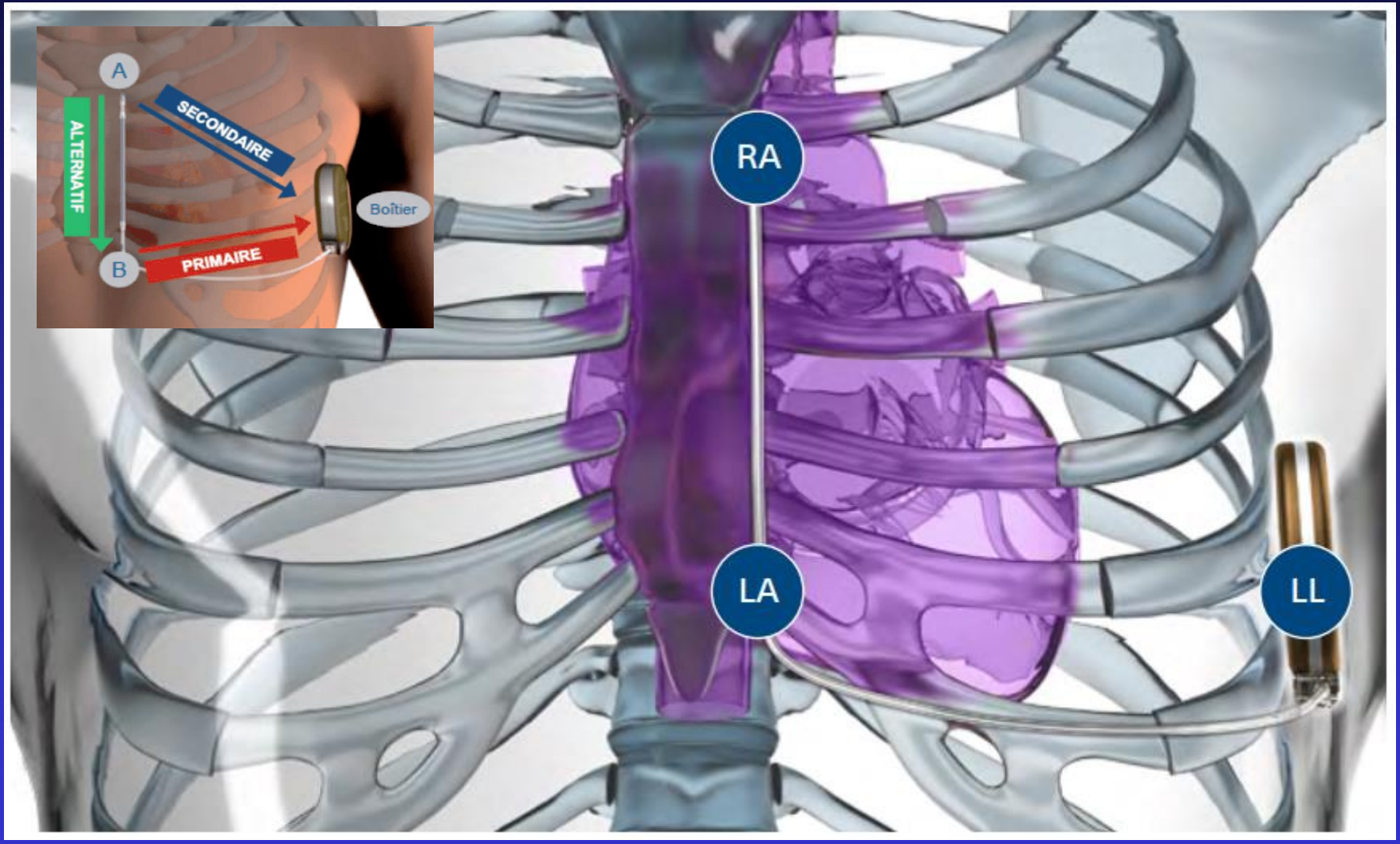
Conflits d'Intérêts

- Aucune rémunération pour la participation au congrès
- Aucune rémunération pour la présentation
- Proctor France S-ICD, Boston Scientific

Sommaire

- Screening et installation du patient
- Marquage cutané, scopie et champage
- Abords axillaire et xyphoïdien
- Tunnellisation transversale et fixation de l'olive
- Tunnellisation sternale et mise en place de la sonde
- Mise en place du boitier, fixation et fermeture
- Induction, anesthésie locale finale
- Gestion des échecs

Screening et Installation du Patient



Screening et Installation du Patient

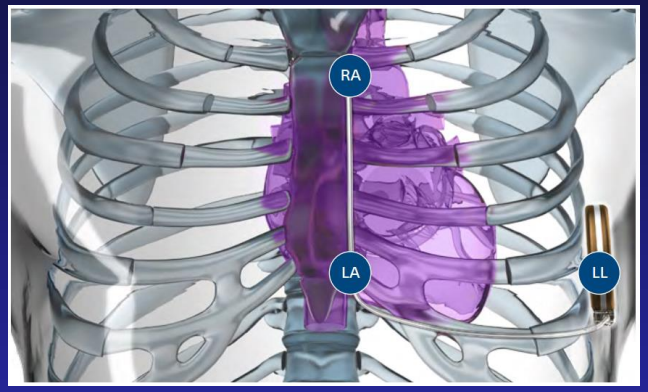
TIP

If suboptimal screening is obtained on the left side: ensure a stable ECG baseline and consider screening on the right side.[9]

If the patient fails left- and right-sided screening, consider:

- Shifting the system up or down by 1cm
- Positioning the can in a more posterior position

If the patient fails screening due to low amplitude signals, be aware that there may be an increased risk of under-sensing and inappropriate therapies.



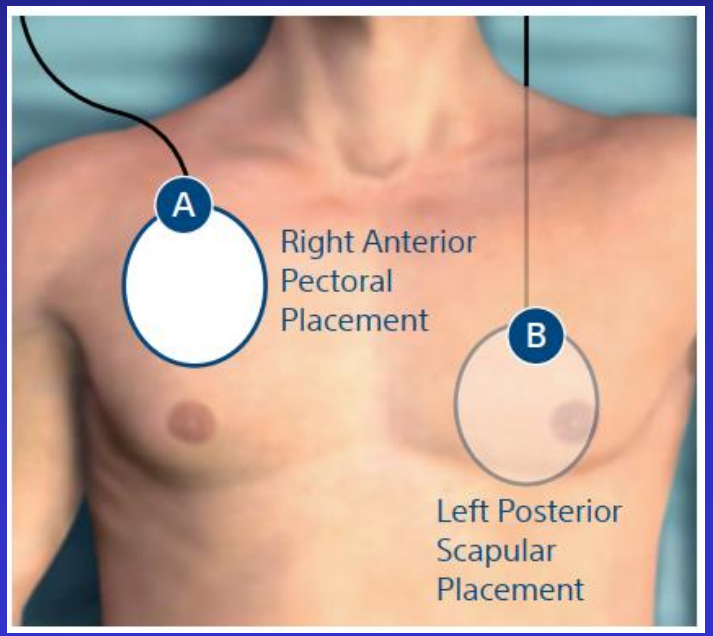
Astuces s

- Anticipe ant le bloc)
- Couché
  - ≥ 2/3
  - 1/3 c
  - 0/3 r arit/âge

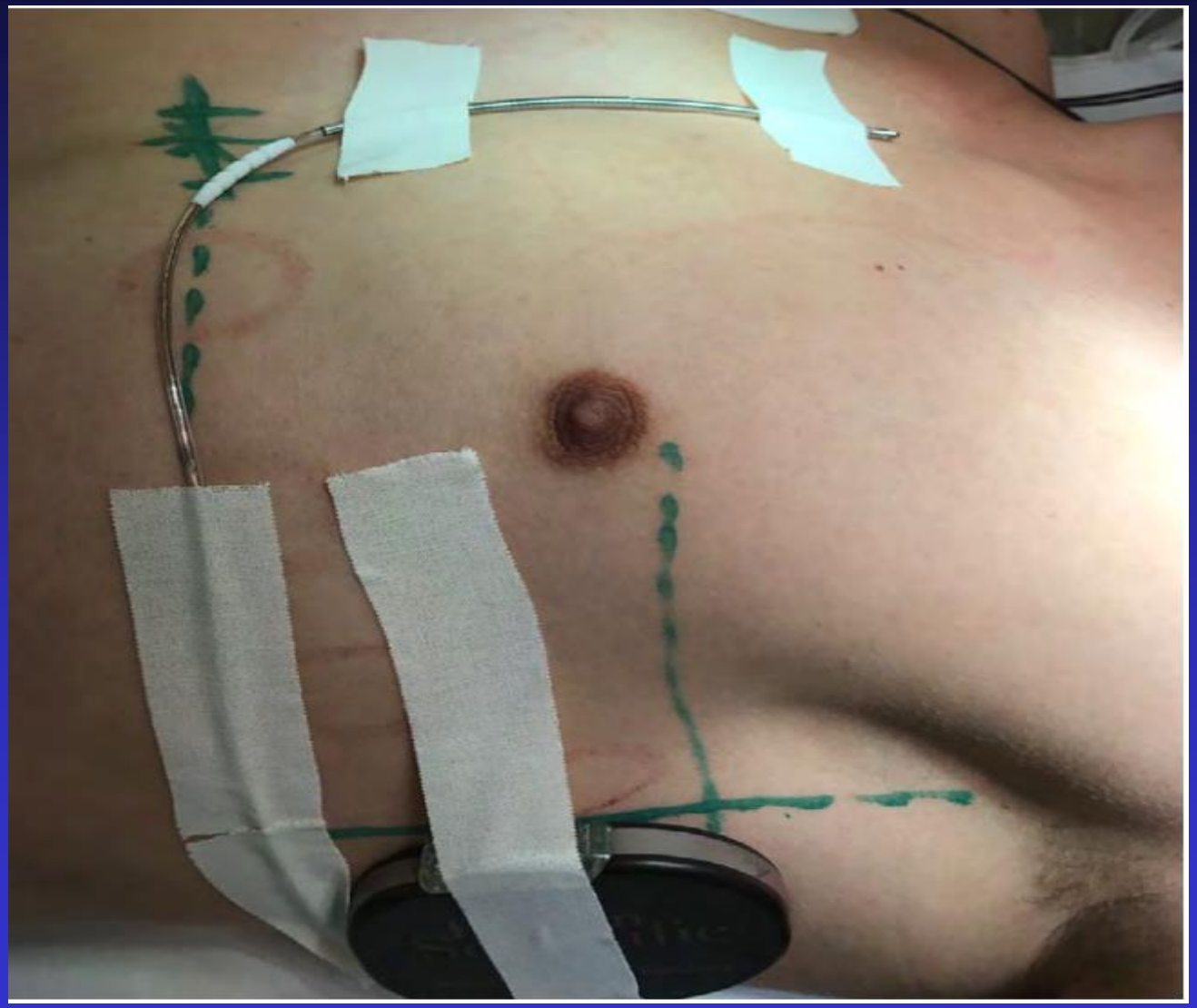
Screening et Installation du Patient

Astuces installation

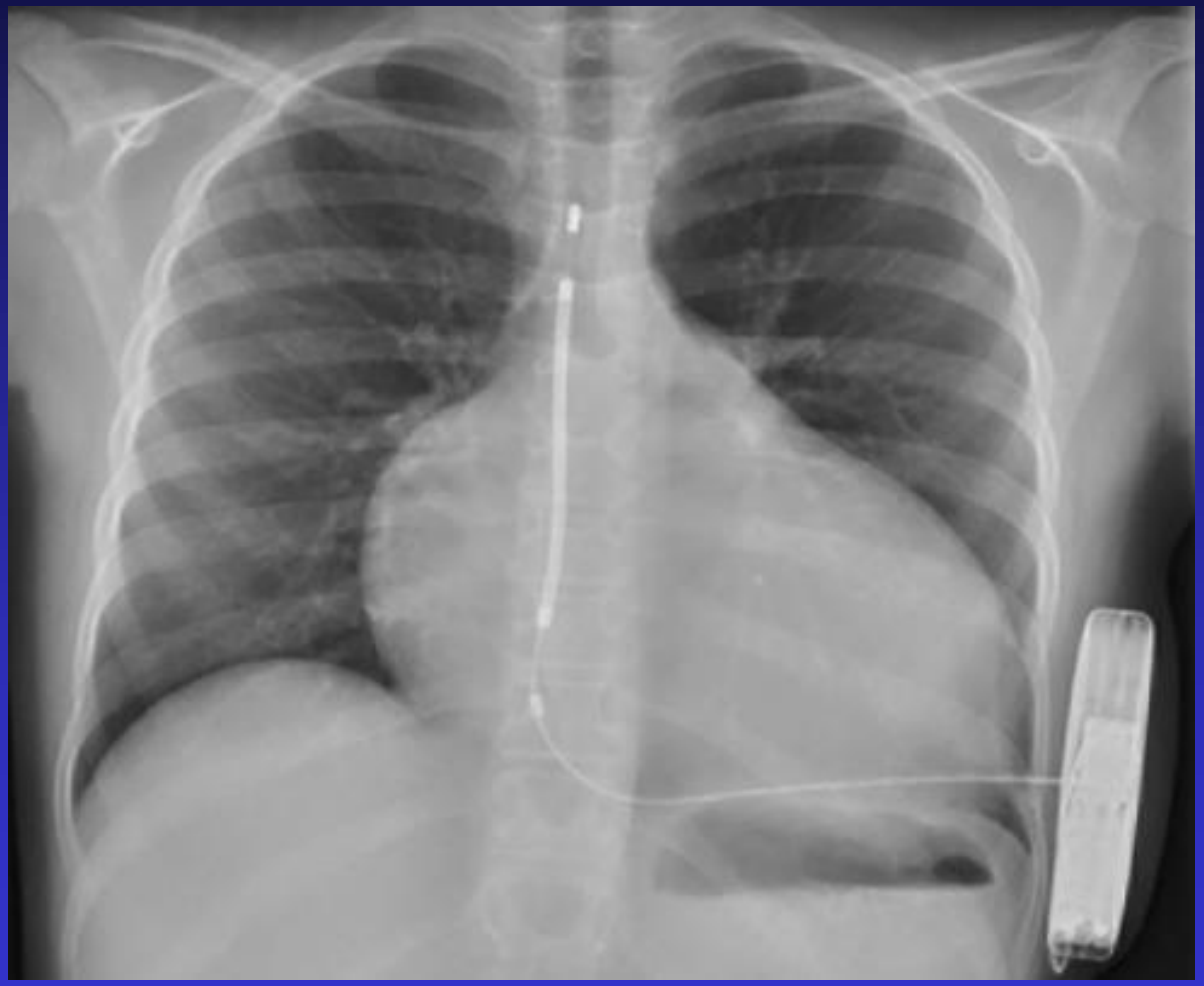
- Décubitus dorsal strict
- Léger décubitus latéral droit ou coussin/drap APRES le repérage!
- Patchs DAI externe, AG



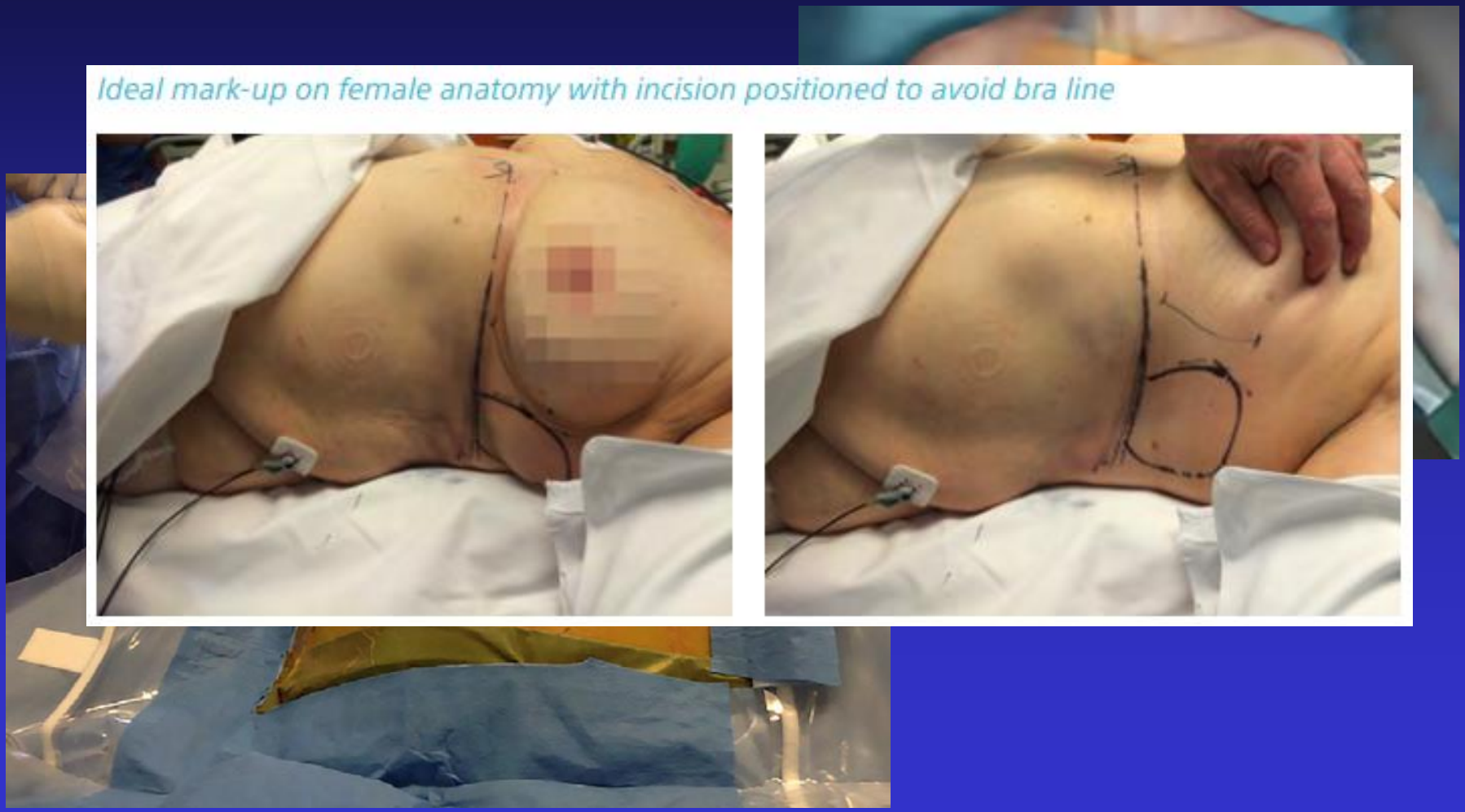
Marquage Cutané, Scopie et Champage



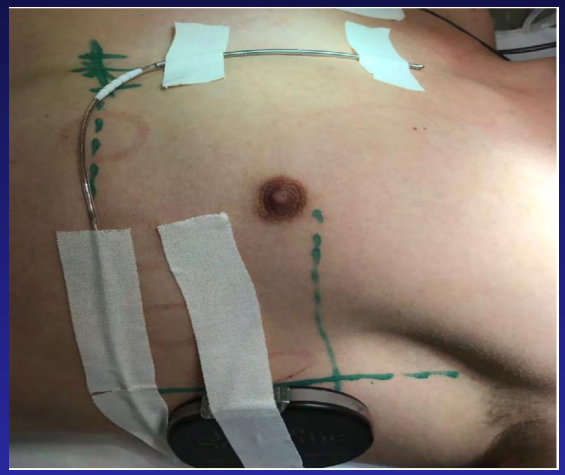
Marquage Cutané, Scopie et Champage

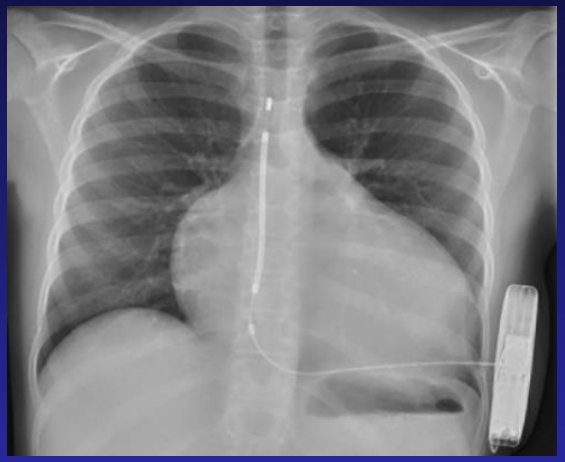


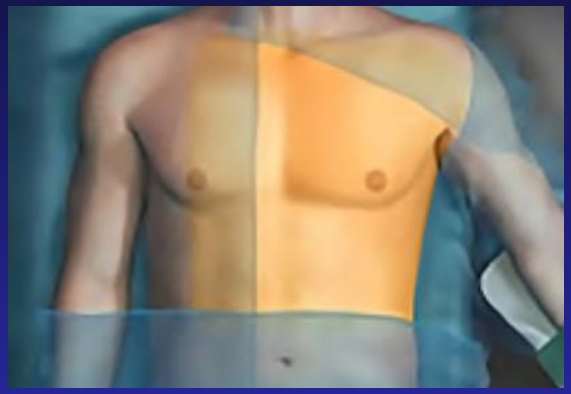
Marquage Cutané, Scopie et Champage



Marquage Cutané, Scopie et Champage



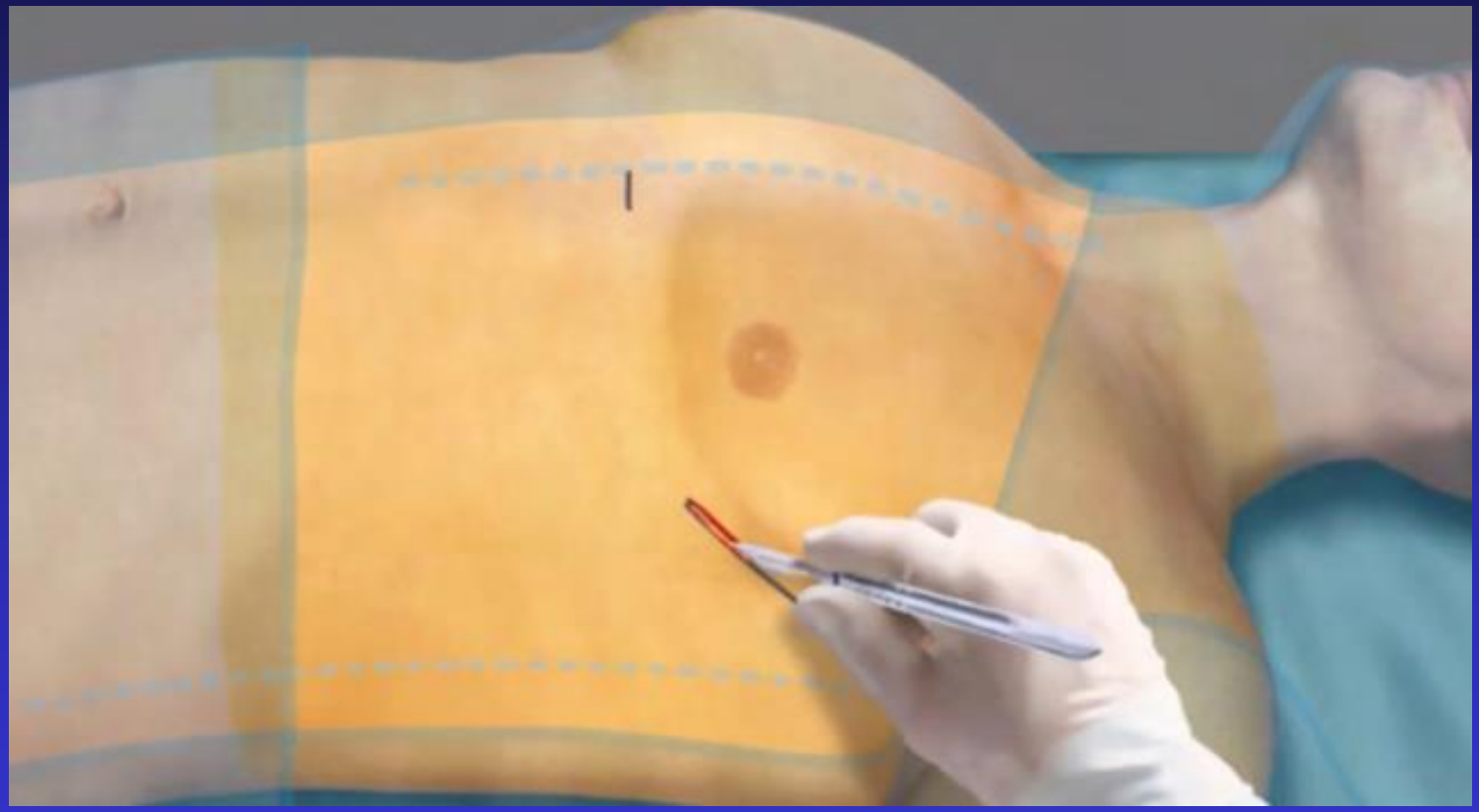




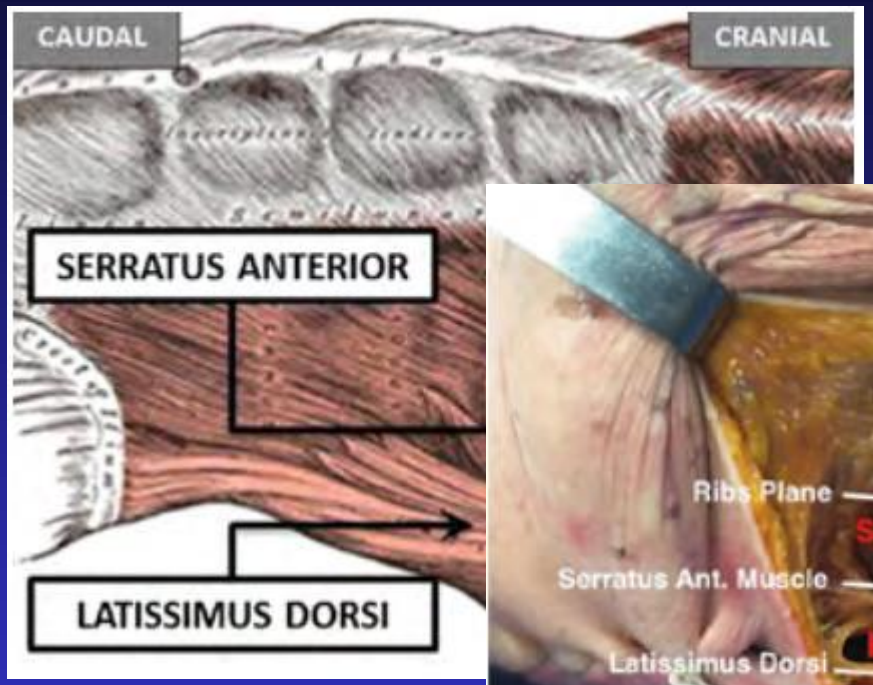
Astuces marquage, scopie, champage

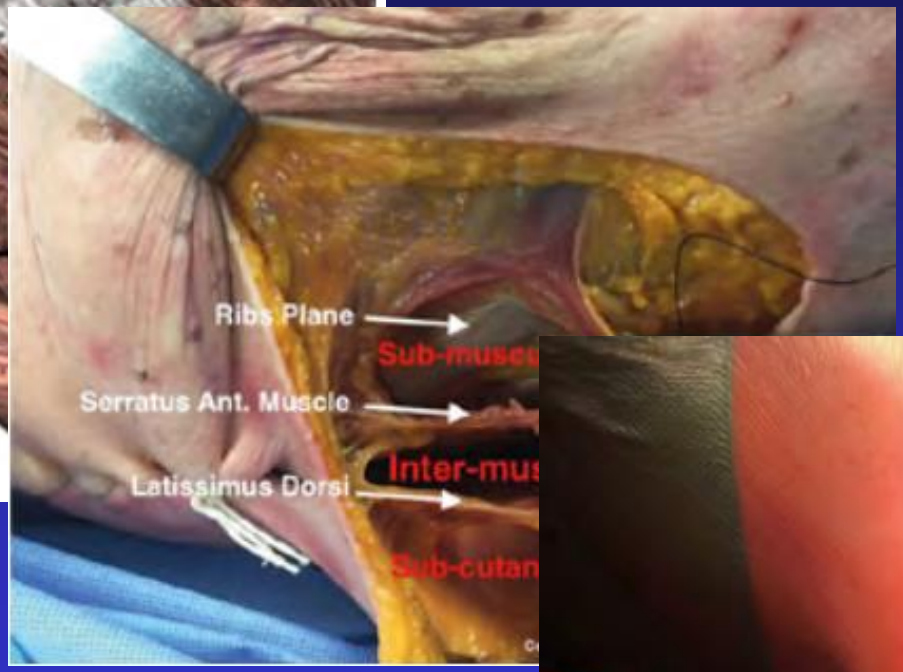
- Position postérieure du boitier
- Position des électrodes de détection par rapport au cœur
- Champage large (sonde sternale droite, DAI endo)

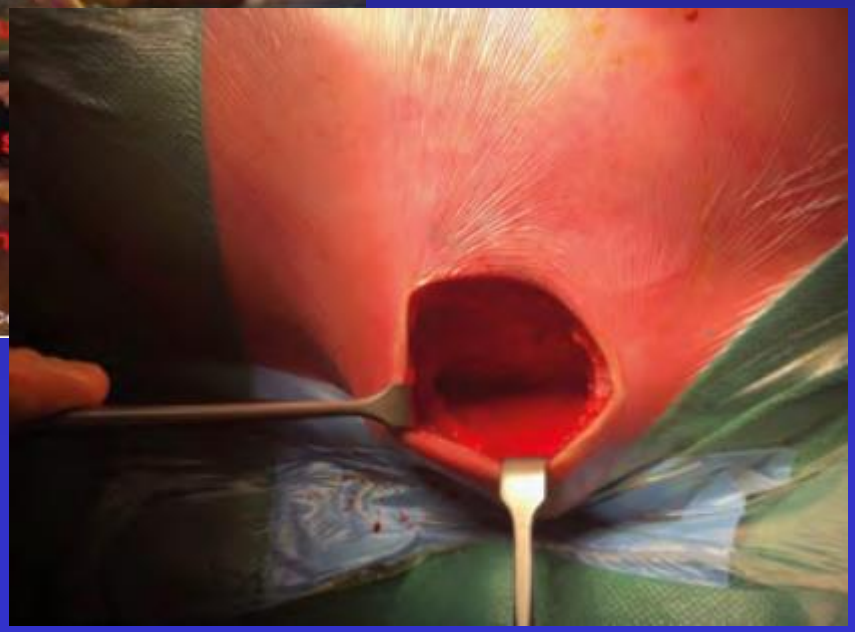
Abords Axillaire et Xyphoïdien



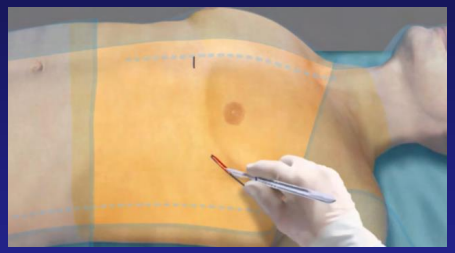
Abords Axillaire et Xyphoïdien







Abords Axillaire et Xyphoïdien

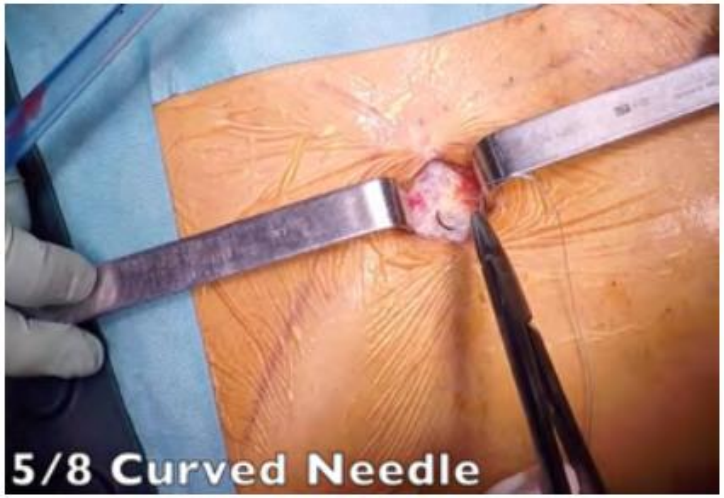


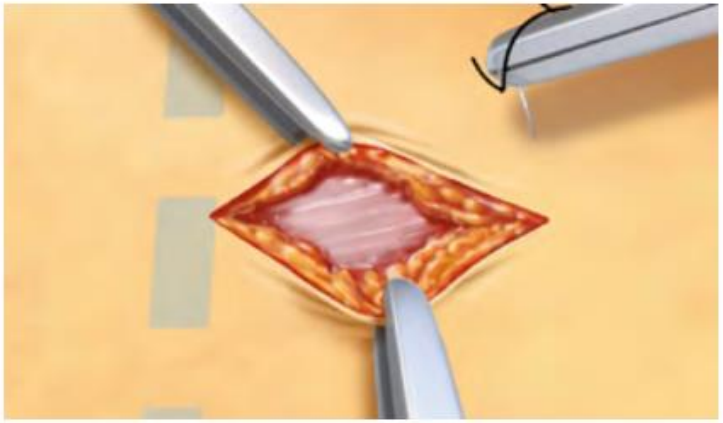
Astuces abord axillaire

- Incision 4 doigts
- Incision longitudinale, parallèle aux lignes de peau
- Recherche dans l’angle supérieur gauche
- Dissection aux doigts + main

Abords Axillaire et Xyphoïdien

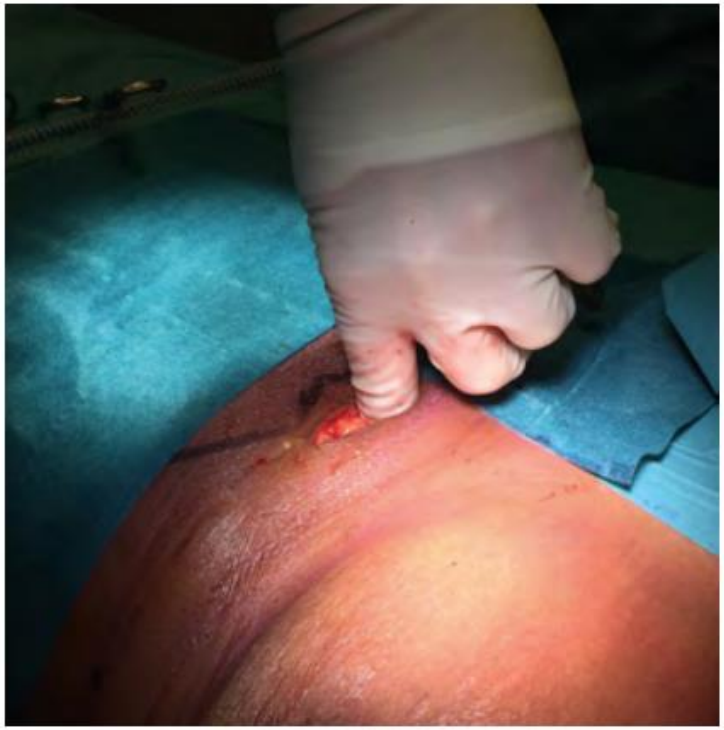
Pectoralis Major Fascia





Images courtesy of Dr Droghetti

Xiphoid Incision in an Obese Patient

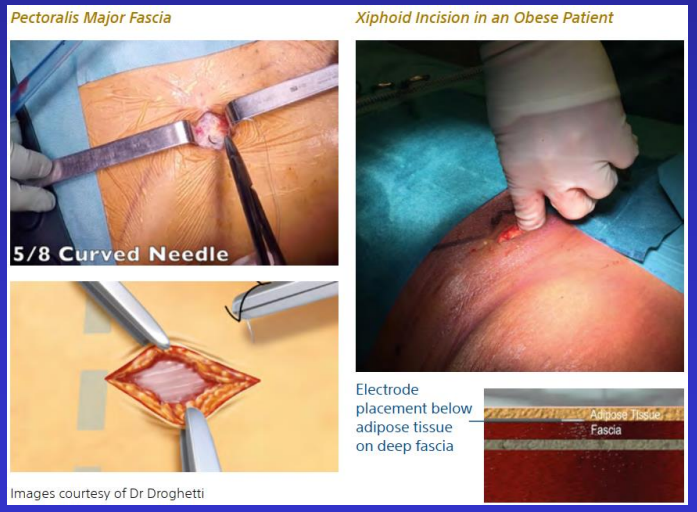


Electrode placement below adipose tissue on deep fascia

Abords Axillaire et Xyphoïdien

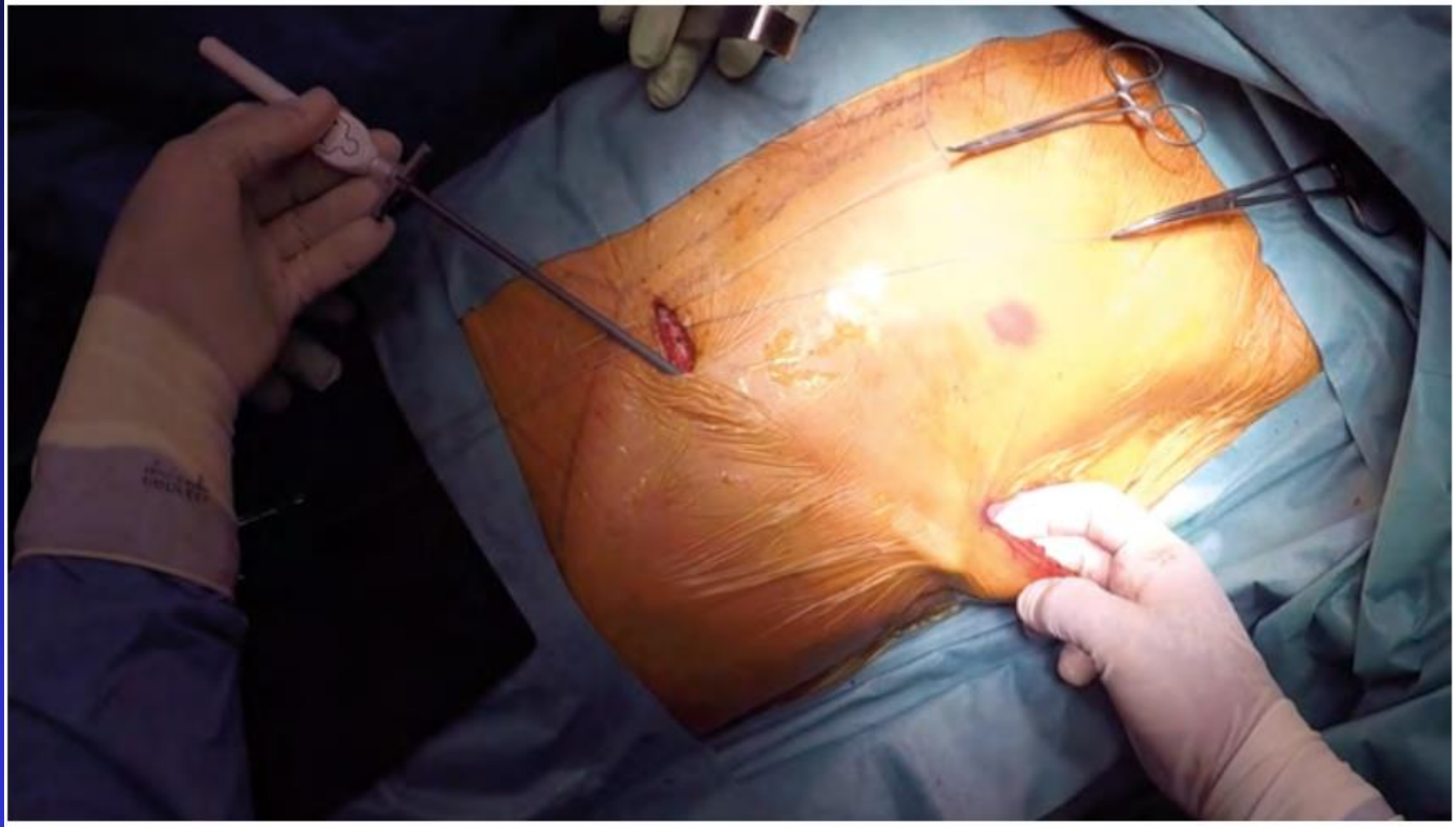
Astuces abord xyphoïdien

- Dissection jusqu'au fascia (doigt + compresse)
- Ouverture large (> olive)

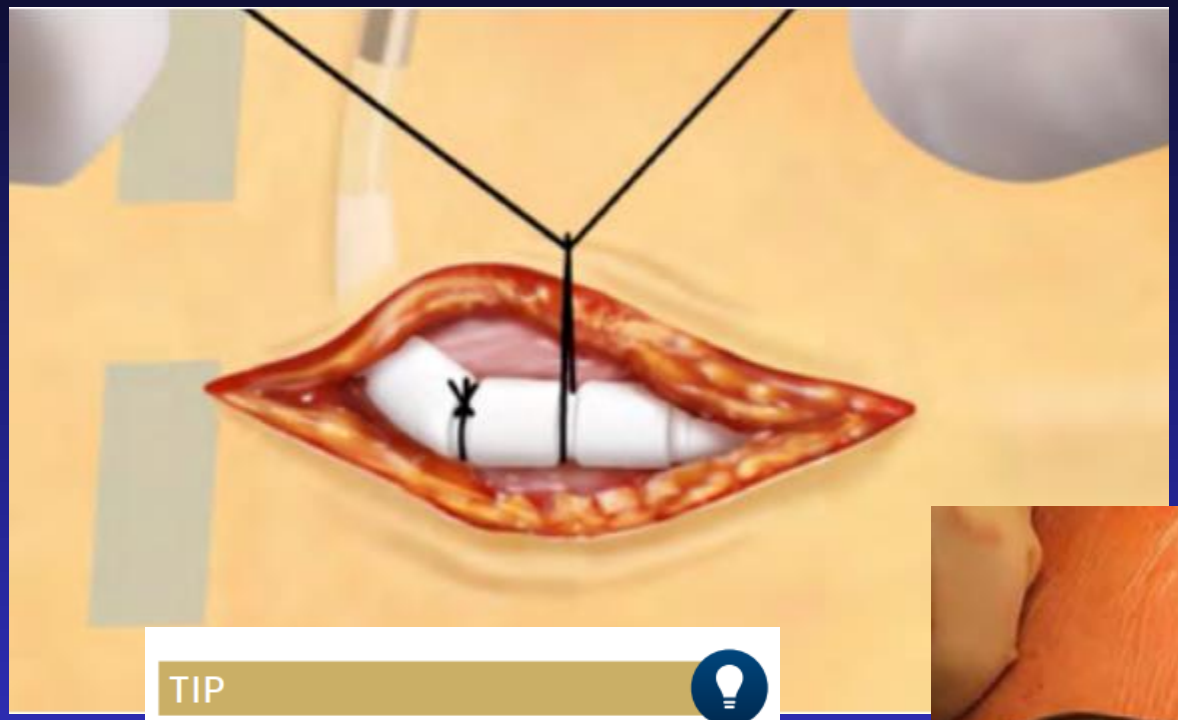


Tunnellisation Transversale et Fixation de l'Olive

Creating the lateral tunnel with the Electrode Delivery System (EDS)

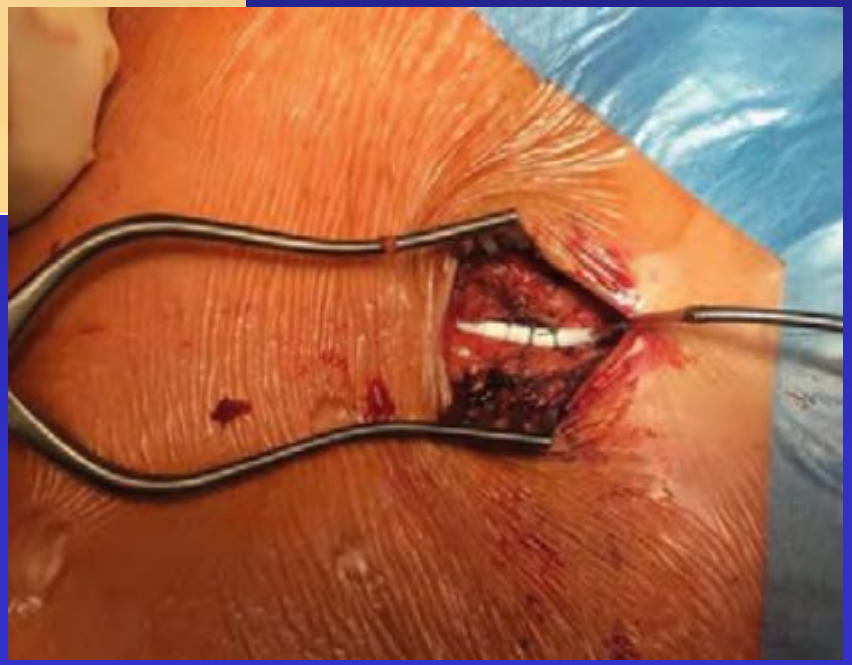


Tunnellisation Transversale et Fixation de l'Olive



TIP

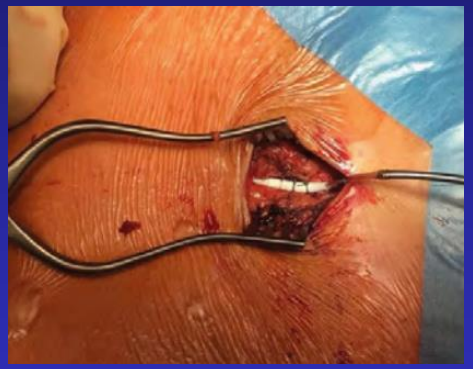
In labelling, the electrode is secured at the xiphoid **prior** to creation of the superior tunnel;[1] alternatively, the electrode may be secured at the xiphoid **after** superior tunnelling (this may give more room to create the superior tunnel).

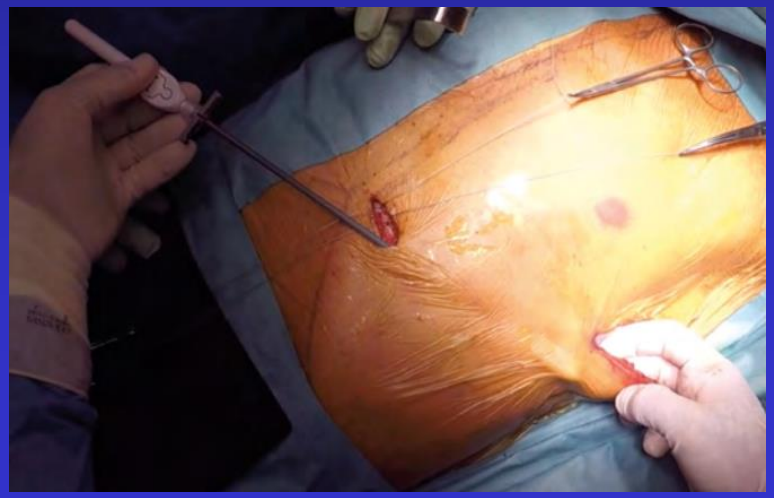


Tunnellisation Transversale et Fixation de l'Olive

Astuces tunnellisation et olive

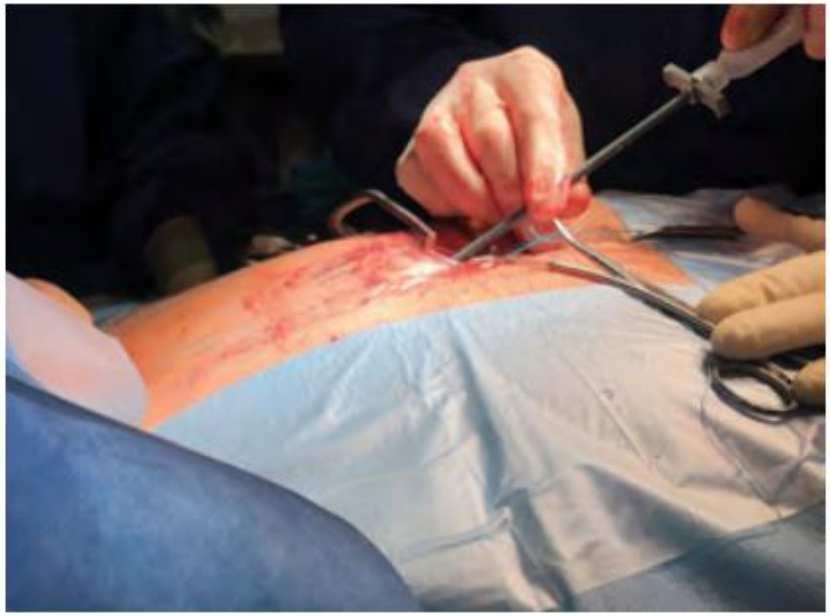
- Pré-tunnellisation au doigt
- Centrer l'olive
- Préparation des fils de fixation à l'avance





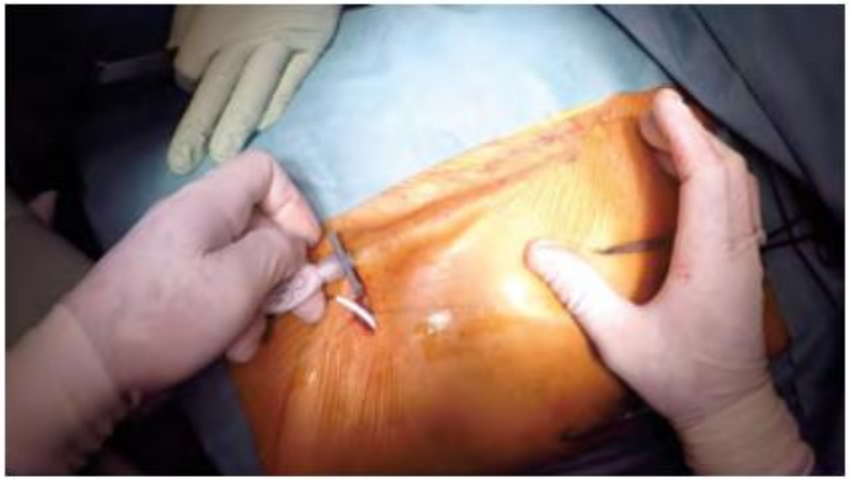
Tunnellisation Sternale et Mise en Place de la Sonde

Superior Tunnelling



Short (superior) tunnelling tool angled at 10-20° from sternum

Image courtesy of Dr Muñoz



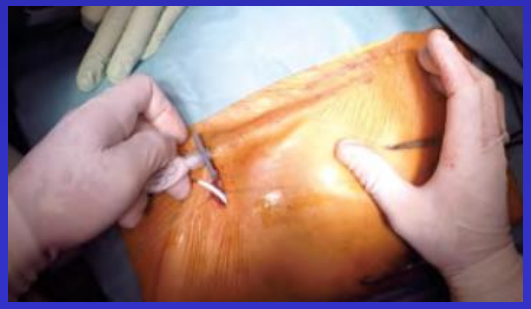
Creation of the superior tunnel

Image courtesy of Dr Droghetti

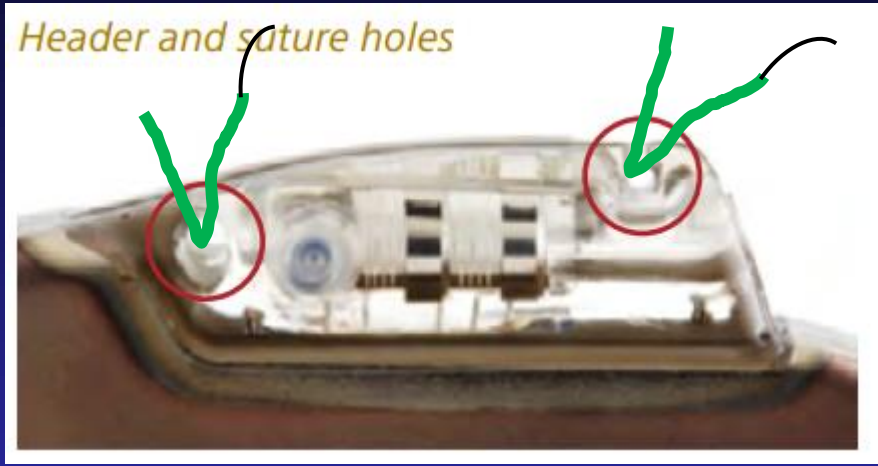
Tunnellisation Sternale et Mise en Place de la Sonde

Astuces tunnellisation sternale et sonde

- « Racler » le grill costal (passage SUPRA sternal!)
- Purge (eau, seringue, aiguille)
- Casser l'extrémité du désilet pour mieux insérer la sonde
- Pelage du désilet
  - Une main + pince
  - Une main + pouce
- Massage (cranio-caudal, bulles)



Mise en Place du Boitier, Fixation et Fermeture



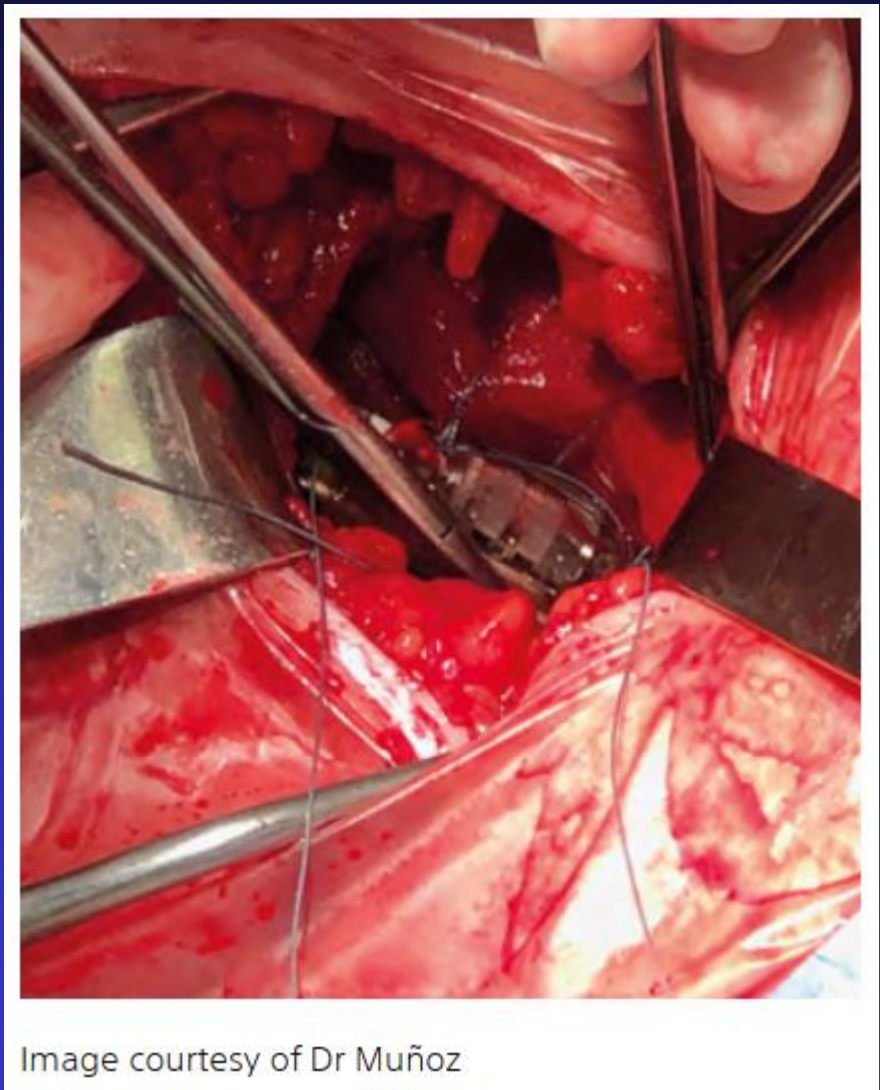
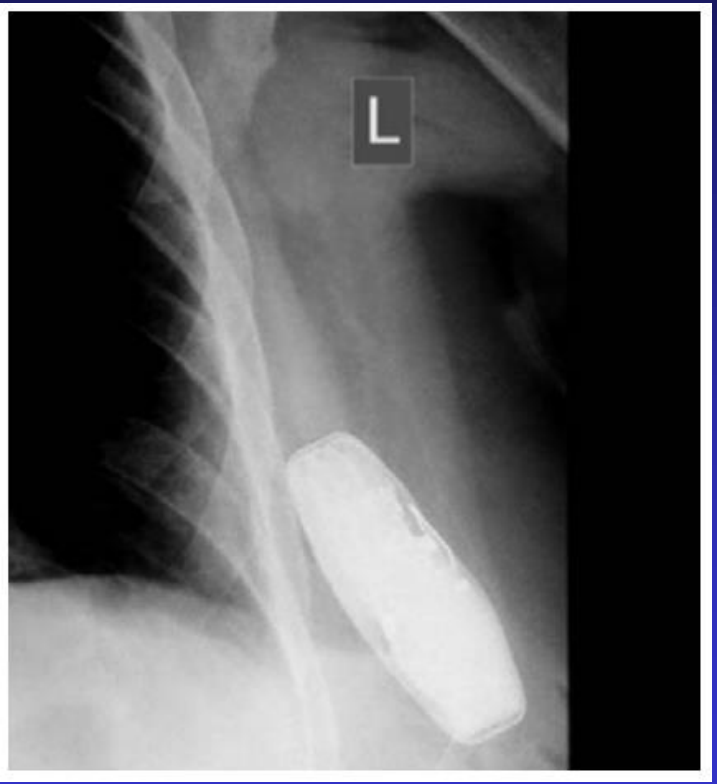


Image courtesy of Dr Muñoz

Mise en Place du Boitier, Fixation et Fermeture

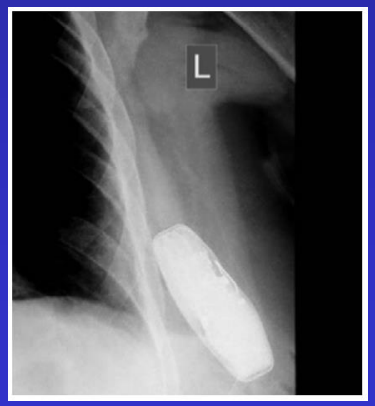
- Secure can to the fascial plane covering the serratus anterior muscle, with two non-absorbable sutures through the header to stabilise the device and prevent rotation – particularly important in high BMI patients.
- Lead should be tucked around and under can.
- Sutures adhering device to fascia should be slightly loose for comfort.



Mise en Place du Boitier, Fixation et Fermeture

Astuces boitier, fixation et fermeture

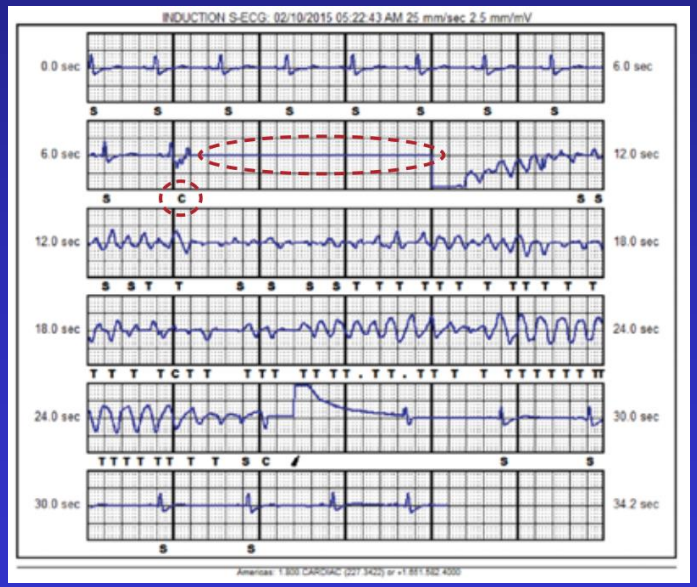
- Préparer le boitier façon « marionnette »
- Dévissage puis vissage (bulle)
- Fixation lâche
- Fermeture « 2 plans en 1 »



Induction, Anesthésie Locale Finale

Astuces Induction

- Position du bras (adduction)
- CEE charge maximale si besoin
- Vérification détection/succès/impédance de choc (≈40-110 Ω)



Courant continu 65J (80J)

Astuce douleur

- Infiltration cicatrice + loge axillaire avant fermeture
  - Naropeïne

Induction, Anesthésie Locale Finale

No defibrillation testing planned post implant.

Consider checking appropriate system location under X-ray (LAO-PA).

If testing will not be performed per physician discretion, or if a clinician decides to evaluate shocking lead impedance prior to defibrillation testing:

- System integrity can be evaluated by delivering a synchronised shock at a low energy (10J lowest programmable). There is a strong correlation between the 10J and the 80J shock impedance.[35]

Gestion des Echecs

Astuces de recherche de cause

- Air, tissu graisseux
- Vérification des paramètres DAI + sonde
  - Détection, Vecteur
  - Impédance
- Contrôle sonde (position, scopie orthogonale)
  - ± repositionner la sonde + nouveaux tests
- Contrôle boitier si échecs
  - ± repositionnement
- En dernier recours DAI endocavitaire


THANK YOU
FOR
YOUR
ATTENTION
gettyimages
Miguel Navarro