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Box Lesion in the Open Left Atrium for Surgical Ablation of Atrial Fibrillation

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Disclosure

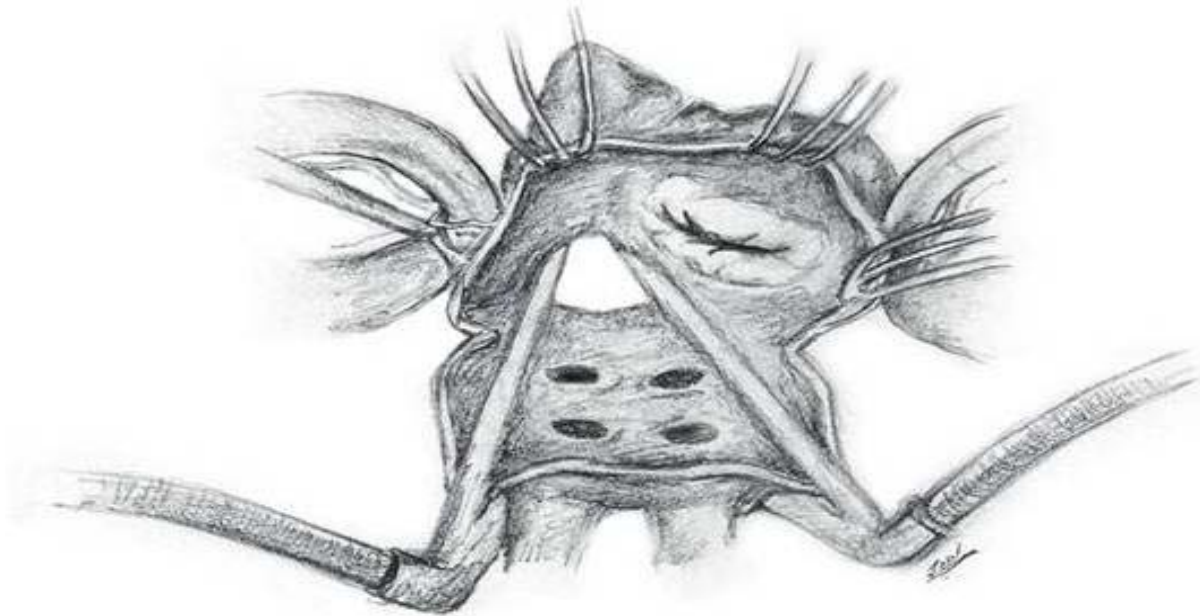
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- There are no relationships with the industry.



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for Surgical Ablation of Atrial Fibrillation

March 2009 - June 2012

90 patients - surgical ablations by the "box" technique
with bipolar RF



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Preoperative patient characteristics

Age	63±10
Male	59 (65%)
Functional Class I - II	63 (70%)
Functional Class III-IV	27 (30%)
Atrial Fibrillation Type:	
Paroxysmal	14(16%)
Persistent	55(61%)
Long Standing Persistent	21(23%)
Atrial Fibrillation Time (years):	5.4±9
5-10	24 (27%)
>10	12 (13%)
Left atrial volume > 200cm ³	11 (12%)
Ejection Fraction	55%±9

Operation data

Mitral repair	29 (32%)
Mitral replacement	26 (29%)
Non-mitral surgery	35 (39%)
CABG	22 (24%)
AVR	11 (13%)
Septal Myectomy	2 (2%)
X-clamp time (min)	95±28
CPB time (min)	118±32



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Results

Early post-operative data

Mortality	0 (0%)
Cerebrovascular attack	2 (2%)
Myocardial infarction	0 (0%)
Ventilation > 48h	8 (9%)
Renal failure	6 (7%)
Wound infection	2 (3%)
Rhythm at discharge:	
Sinus	85 (94%)
Atrial fibrillation/Flutter	4 (5%)
Nodal	1 (1%)
Permanent pacemaker	1 (1%)

Mid-term results

	6months 85 pts	1year 74 pts	2years 53 pts
Sinus	80 (94%)	69 (93%)	48 (91%)
Atrial fibrillation/Flutter	5 (6%)	5 (7%)	5 (9%)
Freedom from atrial fibrillation and AAD	67 (78%)	65 (88%)	45 (85%)
Sinus Without Coumadin	26 (30%)	34 (46%)	32 (60%)

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Conclusion

- The "box lesion" technique provides excellent freedom from atrial fibrillation, and may improve transmuralty due to ablation of one rather than two layers of atrial wall, as in epicardial pulmonary vein isolation.
- This technique deems dissection around the pulmonary veins unnecessary, and was found to be particularly effective when surgery was performed through the right mini-thoracotomy incision



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