

Minimally Invasive LVAD Decommissioning for Myocardial Recovery

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Single-case report of minimally invasive LVAD decommissioning after myocardial recovery following prolonged cardiogenic shock.

1. BACKGROUND

- LVAD withdrawal may become possible after meaningful myocardial recovery.
- Conventional explantation is effective but may carry

2. CASE SUMMARY

- 52-year-old man with ventricular fibrillation arrest, prolonged CPR, anterior STEMI, and refractory cardiogenic shock.
- PCI of the LAD was performed; peripheral ECMO support became necessary.
- Echocardiography showed biventricular dilatation and LVEF of 15%.
- Emergency continuous-flow LVAD implantation was performed as salvage therapy.
- After 3 months of support,

3. WHY DECOMMISSIONING?



4. TECHNIQUE

- Approx. 6-cm anterolateral left thoracotomy at the 5th intercostal space.
- Outflow graft exposed, clamped, transected, and oversewn.
- Driveline identified, divided, and freed

5. KEY FACTS

Age:	52 years
Pre-LVAD LVEF:	15%
Follow-up LVEF:	>40%
Support duration:	3 months
Follow-up:	9 months

7. RESULTS

- Procedure tolerated without relevant complications.
- Postoperative recovery was uneventful.
- Clinical and echocardiographic recovery persisted during

8. CONCLUSION

- Minimally invasive LVAD decommissioning appears feasible in carefully selected patients with myocardial recovery.
- This strategy may avoid the trauma of complete explantation while preserving favorable mid-term recovery.

6. FIGURES

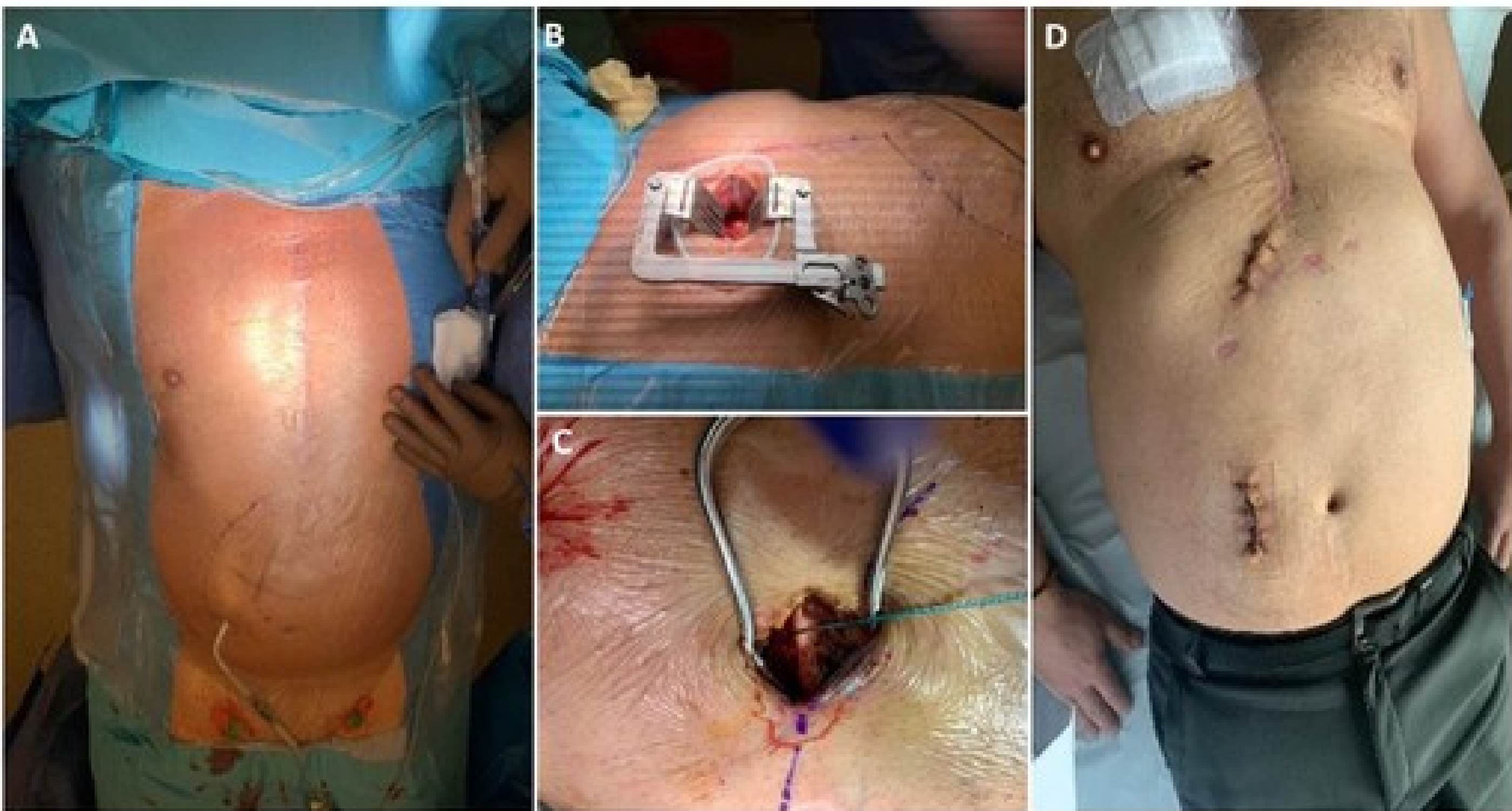


Figure 1. Operative photographs

Left thoracotomy access, graft identification, graft closure, and postoperative wound status.



Figure 2. Post-decommissioning imaging

Chest radiograph, CT, and echocardiography demonstrating post-procedural status and recovery.

Minimally invasive decommissioning may be a practical bridge from mechanical support to recovery when full explantation is undesirable.