

Luck Never Gives, It Only Lends



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The evolution of minimally invasive surgical techniques has been truly dizzying. For those of us who remember open bariatric surgical operations, the advancements have been nothing short of miraculous. One of the challenges we face in this hectic evolution of care is to not forget the basic principles of the procedure. A successful minimally invasive operation achieves the goals of its more invasive predecessor with smaller incisions, less pain and often with the aid of modern video technology. Dr Amin et al¹ have introduced a novel means of repair of a penetrating injury to the esophagus using endoscopic clipping and stent placement thus avoiding a thoracotomy. Was this a successful procedure? I imagine the patient would say, “yes” as he recovered remarkably well from this significant trauma, a testament to his care. I would agree that his outcome was excellent; however, I am concerned that it took a fair amount of luck to achieve that end.

The basic principles of repair of a thoracic esophageal injury or perforation are 2-fold. First is to address the contamination from the injury with debridement of devitalized tissue and wide drainage. In the present case, the authors did not address the extraluminal contamination which was admittedly minor, however, significant in location due to the direct communication with the spinal canal. Implications for ineffective control include CNS infection, vertebral osteomyelitis, and fistula formation. Second is to restore the integrity of the GI tract. This requires a multilayer closure of the esophageal defect often buttressed by vascularized tissue due to the recognition that the integrity of the repaired tissue is compromised. This was replaced by a single-layer mucosal closure with clips and an overlying stent for a second layer of protection, although potentially at the cost of mucosal blood flow due to radial compression. Notably, during this procedure, CO₂ was insufflated to permit visualization and thus potentially forcing contaminated material into the spinal defect.

The story of a visionary or pioneer being vilified by contemporary peers is a cliché. Dr Kurt Semm, an early champion of laparoscopy, was labeled a heretic by his German colleagues. He performed the first laparoscopic appendectomy in 1981, the subsequent manuscript was rejected as it was deemed “unethical.”² I am reluctant to be judged by history similar to Semm’s now forgotten critics. On the other hand, we do not discuss the history of those visionaries who traveled an alternative path only to find a dead end and then return to the mainstream.



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Central Message

Successful minimally invasive procedures must not compromise the principles established by the more invasive predecessor.

Dr Elliot Carr Cutler, for example, performed the first surgical procedure for mitral valve disease in 1923 for rheumatic heart disease in 10-year-old girl with congestive heart failure and hemoptysis. She did well after the operation and lived for 4.5 years, ultimately succumbing to pneumococcal pneumonia. Unfortunately, Dr Cutler’s next 7 patients died following the procedure thus leading to a moratorium on such pursuits.³

In minimally invasive surgery, the compass that guides us is our cumulative knowledge and experience which has established the standards of care. Taking shortcuts may be necessary in rare clinical situations yet should not be accepted as the new path, especially by the less experienced. An unstable, multitrauma may require such a short cut but this does not preclude delayed intervention once stability has been achieved. As a result, I would suggest the authors think carefully about using “avoidance of thoracotomy” as an endpoint and consider avoiding casinos for the foreseeable future as their luck may have run out.

REFERENCES

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