

A brief comment on the past and present of surgical treatment of cardiac wounds

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Dear Editor,

With great interest, I read the article by Flécher et al¹ and congratulate them on the quality of the review carried out on the history of surgical treatment of cardiac wounds. It is an exciting topic, so I would like to briefly comment on some facts narrated in this work.

The well-known surgical approach to the heart, described by Larrey in the subxiphoid region, should not be placed in a close historical relationship with the pericardiotomy he performed in 1810 through a thoracotomy. It was not until 1824 that, after treating a soldier who had suffered a penetrating wound between the xiphoid appendix and the 7th costal cartilage, the French surgeon began experimenting on cadavers in search of a faster route to the heart. In 1829 he proposed his oblique subcostal incision which is currently practically not used.²

During Milton's service in Egypt, he surely performed several thoracic surgeries in extremis situation, but there is no evidence to support the claim that median longitudinal sternotomy (MLS) was created during an emergency approach³ or that has been designed for this type of procedure. When he decided to operate on a living human being on January 25, 1897, he used it for an elective total sternectomy in a patient with sternal tuberculosis and ruled out its use in patients with true mediastinal tumors, who needed more urgent surgeries.

On the other hand, it can hardly be said that MLS is currently the gold standard for cardiac surgeons to safely and quickly manage a cardiac stab wound. In patients such as those shown in the article,¹ an approach using a MLS would be very difficult since lateral mobilization of the costal wall during the necessary separation of the two halves of the sternum would displace the knife, causing probably fatal bleeding.

In the emergency room, the gold standard for quickly managing a penetrating cardiac injury is anterolateral thoracotomy in the fifth intercostal space. A 1906 article on experimental surgery in dogs has led some authors to mistakenly consider Spangaro to be the creator of this incision.⁴ They forget that in 1893 Daniel Hale William performed his famous pericardioraphy (the second in history) precisely using that approach.⁵

References

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