

# Treatment of Iatrogenic Pneumothorax during Resection of Diaphragmatic Endometriosis using a Laparoscopic Suction Irrigator: A Simple Approach

Manpreet K. Singh, Menbere A. Dejenie, Sadikah Behbehani, Samar Nahas, Stephanie Handler, Mallory A. Stuparich\*

Department of Obstetrics and Gynecology, University of California, Riverside, School of Medicine, Riverside, California, USA

## OBJECTIVE

To describe a simple approach to repair an iatrogenic pneumothorax that occurred during resection of diaphragmatic endometriosis, using a laparoscopic suction irrigator alone.

## DESIGN

Demonstration of laparoscopic suction irrigator approach to help repair iatrogenic pneumothorax with narrated video footage [Video].

## SETTING

The prevalence of endometriosis is estimated to be 10%–15% with 0.1%–1.5% having diaphragmatic endometriosis.<sup>[1]</sup> For some patients, the depth required for complete excision of the endometriotic lesions may cause a diaphragmatic injury leading to an iatrogenic pneumothorax,<sup>[2]</sup> which occurred with our patient.

## INTERVENTIONS

Use of laparoscopic suction irrigator alone to reestablish negative pressure in the thoracic cavity may minimize the need for additional invasive interventions and is cost effective as this instrument is usually already on the field during complex laparoscopic surgeries. In our case, the diaphragmatic injury was repaired using a barbed suture in a continuous running fashion, and the laparoscopic suction irrigator alone was used to reestablish negative pressure in the thoracic cavity prior to tightening the barbed suture [Figure 1 and Video].<sup>[3,4]</sup>

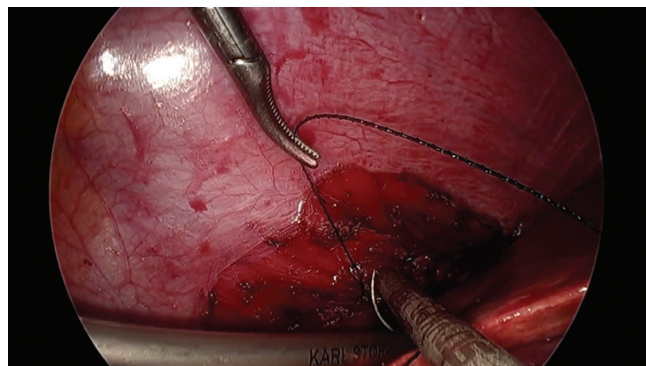
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**Figure 1:** Flaccid diaphragm secondary to iatrogenic pneumothorax caused by diaphragmatic injury during endometriotic resection. A suction irrigator was inserted to reestablish negative pressure in the thoracic cavity. <http://www.apagemit.com/page/video/show.aspx?num=300>

## CONCLUSION

There are many options to treat iatrogenic pneumothorax, including open surgery, chest tube drainage, needle aspiration, and video-assisted thoracic surgery.<sup>[5]</sup> In addition, the laparoscopic suction irrigator alone may be used to reestablish negative pressure in the thoracic cavity after iatrogenic pneumothorax. This technique has not been previously described to our knowledge.

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**Address for correspondence:** Dr. Mallory A. Stuparich, 900 University Ave., Riverside, CA 92521, 844-827-8000, USA. E-mail: mallory.stuparich@medsch.ucr.edu

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## Conflicts of interest

There are no conflicts of interest.

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