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External radiofrequency as a novel extracorporeal therapy for emphysema

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External percutaneous application of radiofrequency (RF) energy improved lung compliance by selectively heating emphysematous tissues and inducing mild fibrosis. RF treatment is a potential novel therapy for extracorporeal treatment of pulmonary emphysema. <https://bit.ly/2ZbWgSk>

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To the Editor:

COPD is characterised by the destruction of lung tissue resulting in alveolar tissue destruction, enlargement of alveolar spaces, poor gas exchange and airway collapse due to the loss of elastic recoil [1]. Lung volume reduction surgery is effective in reducing long-term morbidity and mortality of patients with severe emphysema who have a predominance of upper lobe disease and are able to tolerate the surgical procedure [2, 3]. However, the financial cost and the perioperative morbidity and mortality of the procedure have limited its application in clinical practice [4, 5]. Here, we investigated the possibility of using external radiofrequency (RF) as a novel extracorporeal treatment for emphysema in a rat model of unilateral emphysema.