



critical care  
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FORUM

# Esophageal and Pleural Pressure in a Porcine Model of Unilateral Lung Injury

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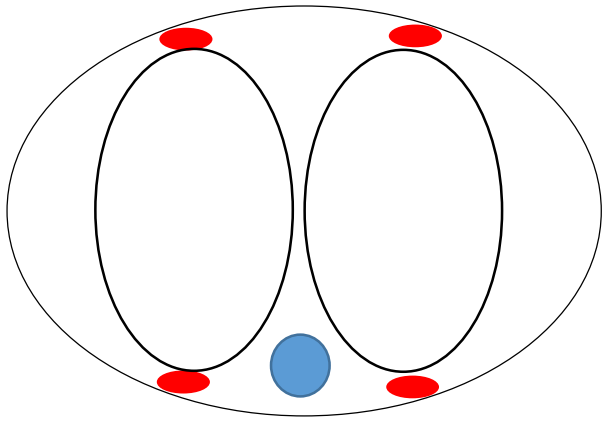


# Background

- **What we know: Pes is a reliable surrogate of low-mid lung Ppl** (Yoshida T *et al.* Esophageal manometry and regional transpulmonary pressure in lung injury. *Am J Respir Crit Care Med* 2018)
- **What we don't know: What the Pes reflexes in context of unilateral lung injury**

# Methods

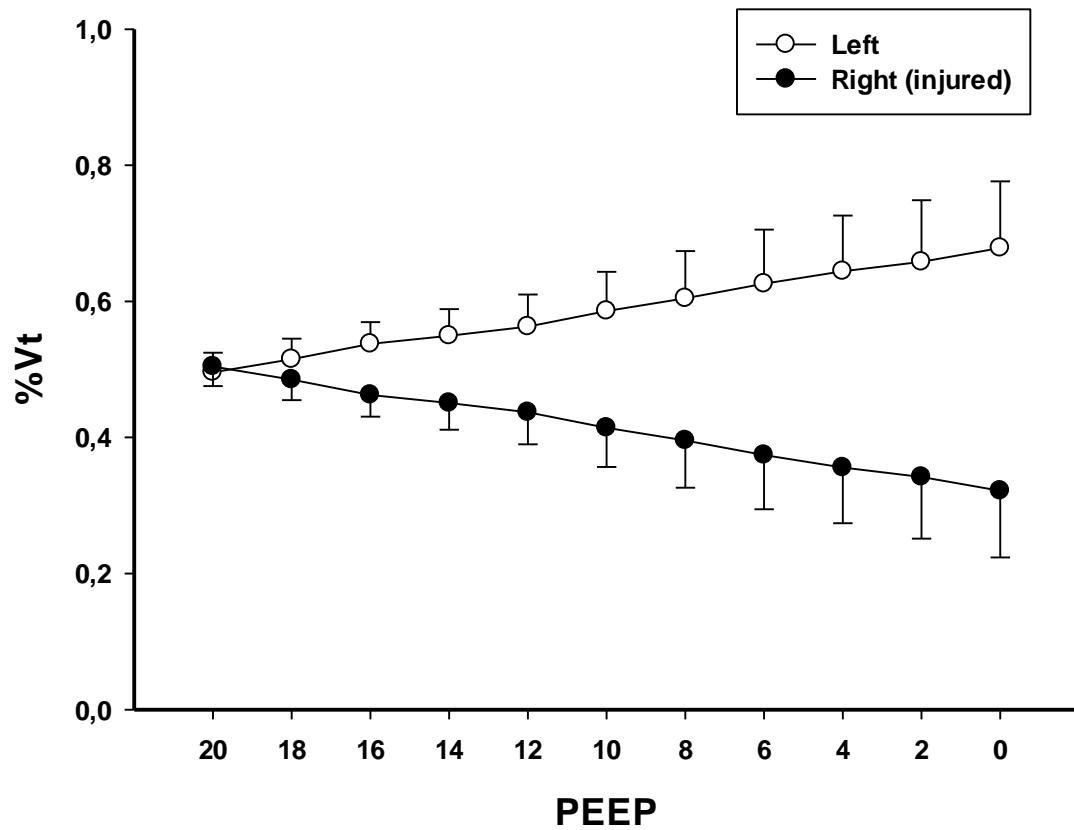
## Surgery



- 4 pleural pressure cath (dorsal + ventral, right and left)
- Pes

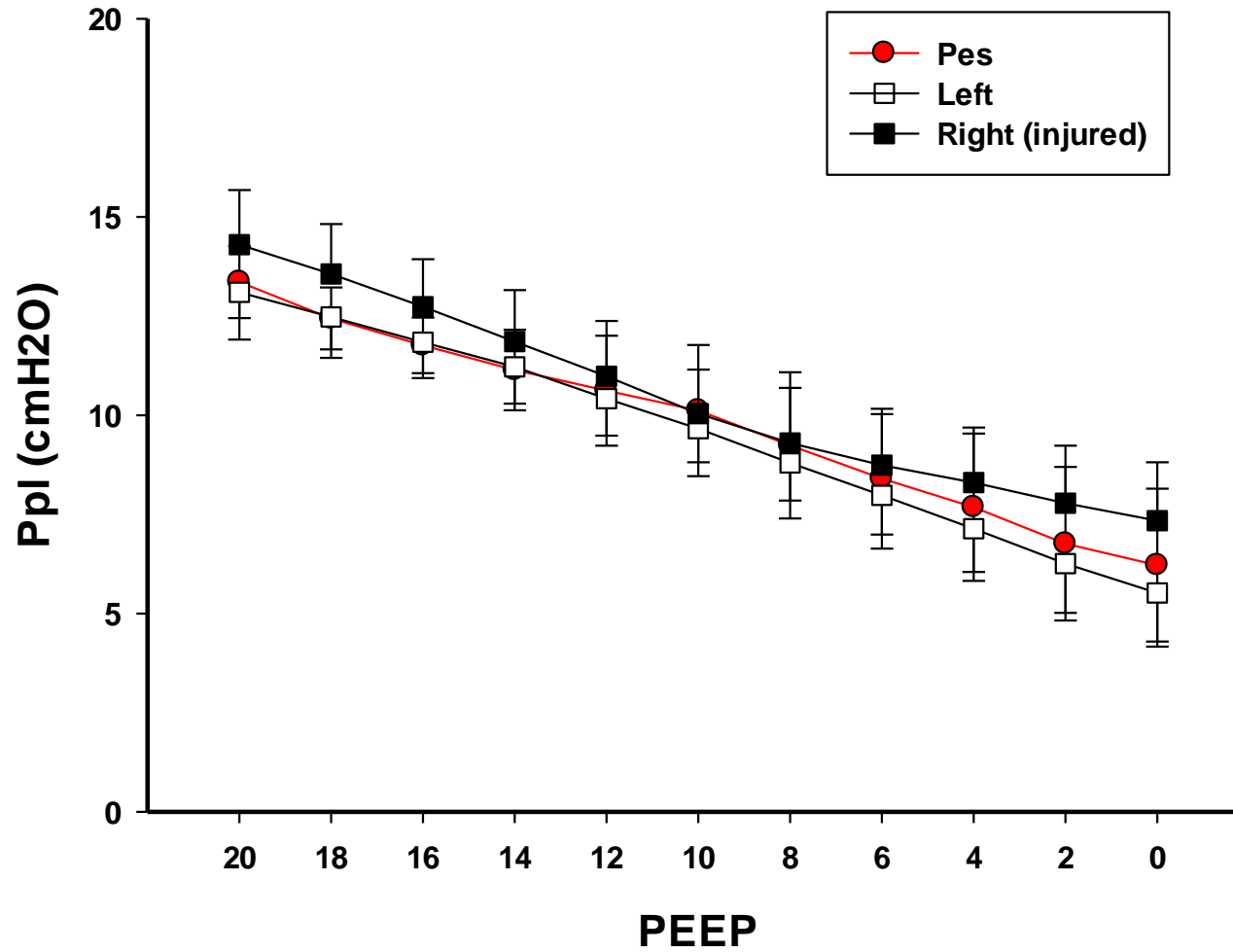
# Difference Between Injured and Non-Injured Side

## Tidal Ventilation Distribution



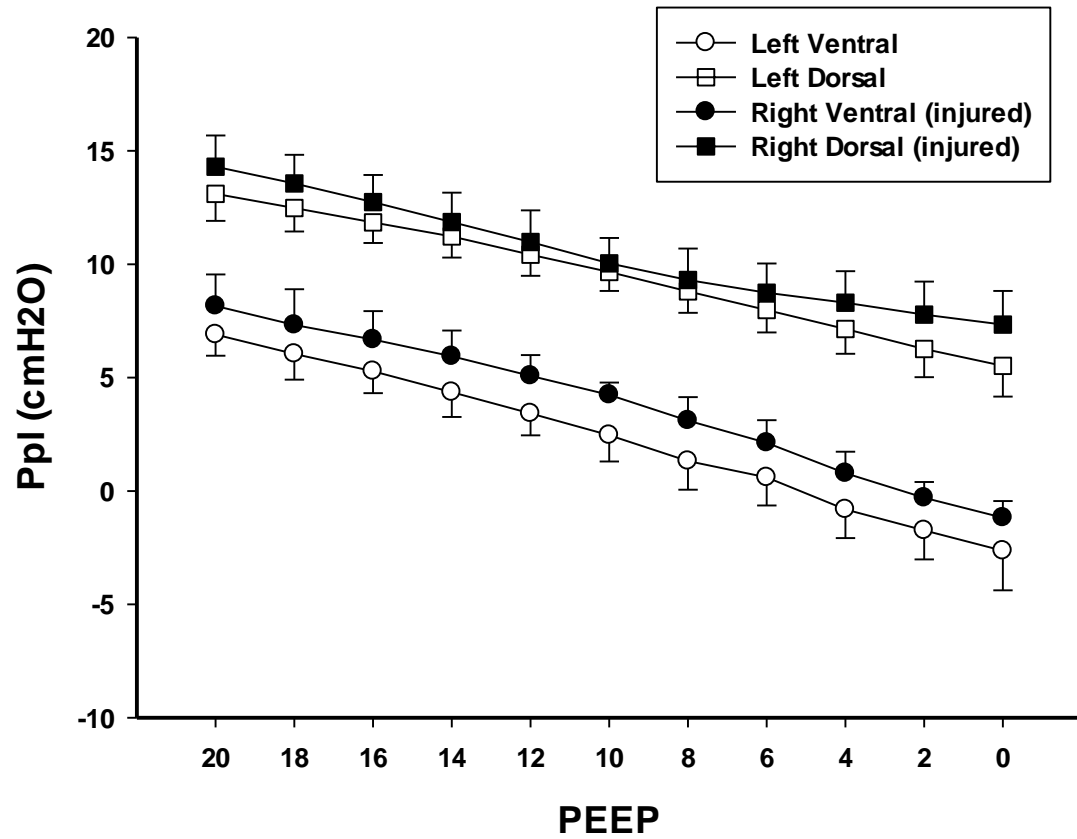
# Dorsal Pleural Pressures and Esophageal Pressure at End-Expiration

## Right lung Injured



# Pleural Pressures at End-Expiration

## Right Lung Injured



# So far...

## It appears

- **Esophageal pressure reflects the dorsal Ppl of both (injured and non-injured) sides**
- **The Ppl seems to equalise in unilateral lung injury despite a significant difference in the two sides**



**Dedicated to Brian Kavanagh**