MECHANICAL CHEST COMPRESSION: CURE OR **CULPRIT**?

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BACKGROUND & OBJECTIVES

It is a known fact that mechanical and manual chest compressions both may **cause injuries**. Previous studies investigating injuries after mechanical chest compression deem none of the injuries to be life-threatening. **Our aim** was to investigate injuries who were deemed to be fatal had the patient survived.

METHOD

In a retrospective case series, **patients treated with LUCAS**, who were subsequently autopsied were included. Patients with trauma, known pregnancy or age below 18 were excluded. Injuries were categorized to be potentially life-threatening by the forensic pathologists.

RESULTS

50
CASES
TOTAL

3 cases had life-threatening injuries

2 cases had injuries associated with higher morbidity

CASE 2

♂ **44**
years old

- Rupture of the aorta (marked with green arrow) causing dissection and massive haemorrhaging

CASE 1

49
years old ♀

- Massive pericardial haemorrhaging (marked with green arrow)
- Bilateral hemothorax (1300 ml total)

Lifesaving treatment, Extra Corporal Membrane Oxygenation (ECMO), **could not be initiated** due to hypovolemia

CASE 3

♀ **22**
years old

- Large laceration of the lung (marked with green arrow)
- Spleen rupture

CASE 4 & 5 were associated with higher morbidity and involved a 51-year old male with bilateral pneumothoraxes and a 51-year old with tension pneumothorax

CONCLUSION

In contrast to previous studies, we find **potentially life-threatening injuries** after treatment with LUCAS.

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abstract