

POSTER PRESENTATION

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# Protective ventilation and negative fluid balance strategy in potential multi-organ donor patients

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## Objective

To describe our results of protective ventilation and negative fluid balance strategy in potential multi-organ donor patients.

## Material and Resources

A descriptive, retrospective study. We describe the results of a small series of potential donors (including older than 70 years) treated in single tertiary level center, from January to September 2013, in accordance with a strict protocol of protective ventilation, recruitment maneuvers, postural changes and negative fluid balance.

The collected variables were: Ventilatory parameters, central venous pressure, 24 hours fluid balance and information related to hemodynamic monitoring by transpulmonary thermodilution with Picco® system (Pulse Contour Induced Cardiac Output).

## Results

13 potential donors were included. Mean age average was 46 years, 46,15% were male. Mean values of central venous pressure (CVP), extravascular lung water indexed (ELWI), a global diastolic volume indexed (GEDV) and stroke volume variation (SVV) at baseline were 7,08 cmH<sub>2</sub>O; 10,67 ml; 795,22 ml / m<sup>2</sup> and 12,38% respectively. After application of the protocol, the mean values were: PVC 6,67 cmH<sub>2</sub>O; ELWI 8,13 ml; GEDV 683,38 ml / m<sup>2</sup> and SVV 16,83%. Mean 24 hours fluids balance was -466,33 ml, mean ratio of partial pressure of arterial oxygen to the fraction of inspired oxygen (PaFiO<sub>2</sub>) improved of the initial value from 256,24 to 365,40 mmHg. Postural changes were made in 91,7% and alveolar recruitment in

83.3% of the patients, diuretics were required in 83.3% of them.

Of the 13 potential donors, 4 patients were lung donors. Within this subgroup, the final CVP decreased to 5,75 cmH<sub>2</sub>O; the ELWI to 7,33 ml and the GEDV to 660 ml / m<sup>2</sup>. 24 hours fluid balance was -1167,50 ml and PaFiO<sub>2</sub> improved to 424,50 mmHg (initial < 300 mmHg).

Moreover of the 13 cases, there were also other donations: 3 hearts, 10 livers, 1 pancreas and 9 kidney donor.

## Conclusion

The depletion of fluids and adequate ventilation management is sure, improves lungs function and probably improves multi-organ donation results.

These measures allow rescue 4 lung donors which initially gasometric criteria contraindicates a possible donation.

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