

Press release

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Basic information

Name: Rasmus Søndergaard Aagaard Email: rasmus.aagaard@clin.au.dk Phone: 22559129

Department of: Clinical Medicine

Main supervisor: Professor, ph.d. Bo Løfgren

Title of dissertation: CARDIAC ULTRASOUND: DEAD OR ALIVE – DOES IT MATTER?
Experimental and clinical studies

Date for defence: December 18, 2017 at (time of day): 14.00 Place: Auditorium Randers Regional Hospital

Press release (Danish)

Overskrift:

Ultralydsskanning af patienter med hjertestop

Manchet - indledning:

Ultralydsfund og kvaliteten af ultralydsbilleder under hjertestop og genoplivning er beskrevet i et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Rasmus Aagaard, der forsvarede projektet den 18. december 2017.

Pressemeddelelsen

Ved hjertestop er det afgørende at en den udløsende årsag til hjertestop identificeres mens der pågår genoplivning. Ultralyd af hjertet har potentiale til bidrage til identifikation af årsager til hjertestop, men der mangler viden på området. Det har hidtil været antaget at ultralydsfund kendt fra levende patienter kan overføres til patienten med hjertestop - f.eks. kan ultralydsfund af en forstørret højre hjertehalvdel være et tegn på blodprop i lungen hos en levende patient. Ved hjælp af grisemodeller har dette ph.d.-projekt demonstreret at hjertestop i sig selv forårsager forstørrelse af højre hjertehalvdel og at dette tegn derfor er uspecifikt når patienter har hjertestop. Ydermere er det i et klinisk studie undersøgt på hvilket tidspunkt under genoplivning de bedste ultralydsbilleder kan opnås.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 18. december, 2017 kl. 14.00 i Auditoriet, Regionshospitalet Randers, Skovlyvej 15, 8930 Randers NØ. Titlen på projektet er "CARDIAC ULTRASOUND: DEAD OR ALIVE – DOES IT MATTER? Experimental and clinical studies". Yderligere oplysninger: Ph.d.-studerende Rasmus Aagaard, e-mail: rasmus.aagaard@clin.au.dk, tlf. 2255 9129.

Bedømmelsesudvalg:

Hans Eiskjær, Professor, overlæge, dr.med. (Formand)
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Klinisk Hjerte-lunge, Hjerte-lunge kirurgi, Aalborg Universitetshospital

Press release (English)

Headline: Focused cardiac ultrasound during cardiopulmonary resuscitation

Lead paragraph:

Identifying reversible causes of cardiac arrest is important during cardiopulmonary resuscitation. Focused cardiac ultrasound has potential to identify reversible causes of cardiac arrest, but knowledge about the interpretation of ultrasound findings is lacking. It has been assumed that ultrasound findings in patients with spontaneous circulation can be extrapolated to patients in cardiac arrest e.g. a dilated right sided heart chambers can be a sign of pulmonary embolism in patients with spontaneous circulation. However, using swine models we have demonstrated that dilation of right sided heart chambers is inherent to cardiac arrest. Thus, this sign may not be specific for pulmonary embolism during cardiac arrest. Moreover, in a clinical study we have compared the quality of ultrasound images obtained during different timepoints during resuscitation.

The project was carried out by Rasmus Aagaard, who is defending his dissertation on December 18, 2017.

The defence is public and takes place on December 18, 2017 at Auditoriet, Regional Hospital Randers, Skovlyvej 15, 8930 Randers NØ. The title of the project is **CARDIAC ULTRASOUND: DEAD OR ALIVE – DOES IT MATTER?** Experimental and clinical studies. For more information, please contact PhD student Rasmus Aagaard, email: rasmus.aagaard@clin.au.dk, Phone +45 2255 9129.

Assessment committee:

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