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Title of dissertation: The role of fixation devices in laparoscopic ventral hernia repair
Date for defense: March 9, 2018 at 2:00 pm
Place: Simulations- og Innovationscenteret Regionshospitalet Horsens, Sundvej 30, 8700 Horsens.

Press release (Danish)

Betydningen af typen af net-fiksering ved kikkertoperation af bugvægsbrok.

Ved kikkertoperation af bugvægsbrok forstærkes bugvæggen med et net. Dette net kan fikseres på bugvæggen på en række måder. Imidlertid ved man ikke, hvilken fiksering der er bedst, og det vides heller ikke, om net og fiksering påvirker hinanden. En fremherskende teori er, at smerterne efter operationen afhænger af typen af net-fiksering.

Med det videnskabelige arbejde i denne ph.d.-afhandling har vi undersøgt effekten af forskellige fikseringstyper i forhold til smerte, livskvalitet, gendannelse af brok og nettets egenskaber.

I et studie på får undersøgte vi, hvorledes forskellige fikseringsmetoder påvirkede skrumpning af net samt dannelse af arvæv og fandt, at det er *samspillet* mellem net og fikseringstype der bestemmer dette.

Derudover udførte vi et klinisk studie, hvor vi undersøgte effekten af tre forskellige typer fiksering. Vi fandt at typen af fiksering ikke spiller nogen rolle for smerter, livskvalitet eller gendannelse af brokket.

Den fremherskende teori om, hvad der forårsager smerter efter operation for bugvægsbrok kan derfor ikke bekræftes og smerterne må antages at skyldes hele det kirurgiske trauma snarere end typen af fiksering alene.

Projektet er gennemført af Sanne Shiroma Harsløf og udgår fra Kirurgisk Afdeling Regionshospitalet Horsens.

Forsvaret af ph.d.-afhandlingen er offentligt og finder sted den 9/3 2018 kl. 14.00. Simulations- og Innovationscenteret Regionshospitalet Horsens, Sundvej 30, 8700 Horsens.

Bedømmelsesudvalg:

Formand:

Peter Christensen, Professor, ph.d., Dr.med. Kirurgisk Afdeling, Aarhus Universitetshospital, Danmark.

Eksaminatorer:

Agneta Montgomery, overlæge, klinisk lektor, ph.d. Kirurgisk Afdeling, Skåne Universitetshospital, Malmø, Sverige.

Lars Nannestad Jørgensen, Professor, Dr.med. Kirurgisk Afdeling, Bispebjerg Hospital, Københavns Universitetshospital, Danmark.

Press release (English)

The role of fixation devices in laparoscopic ventral hernia repair.

In laparoscopic ventral hernia repair the abdominal wall is reinforced with a mesh. This mesh can be fixated in several ways. It is currently unknown, however, which fixation method is best and it is also unknown if mesh and fixation affect each other. A prevailing theory is that post-operative pain is dependent on the type of mesh fixation.

In the present thesis we investigated the effect of three different types of fixation on pain, quality of life, hernia recurrence, and mesh properties.

In a sheep study we demonstrated that it is the interaction between mesh and fixation device that affects mesh shrinkage and the number of adhesions.

In addition, we performed a clinical study and demonstrated that postoperative pain and quality of life as well as recurrence are independent of fixation method. The prevailing theory on the cause of postoperative pain in these patients therefore was not confirmed. Rather it must be assumed that pain is due to the surgical trauma in total rather than the type of fixation alone.

The project was carried out by Sanne Shiroma Harsløf, Department of Surgery, Regional Hospital Horsens

The oral defense of the PhD dissertation is public and will take place on March 9 2018 at 2.00 pm in Simulations- and Innovationscenteret Regional Hospital Horsens, Sundvej 30, 8700 Horsens,

Assessment committee:

Chairman:

Peter Christensen, MD, Professor, PhD, DMSc. Department of Surgery Aarhus University Hospital, Denmark.

Examiners:

Agneta Montgomery, MD, Chief Physician, Ass. Professor, PhD. Department of Surgery, Skåne University Hospital, Malmö, Sweden.

Lars Nannestad Jørgensen, MD, Professor, DMSc. Department of Surgery Bispebjerg Hospital, Copenhagen University Hospital, Denmark.