

necrosectomy sessions were undertaken in the 15 patients. Five, 7 and 3 patients had 1, 2 and 3 sessions, respectively. The average length of hospital stay was 10 days. All patients were discharged from the hospital and thus there was a zero in-hospital mortality rate. One patient, who missed his scheduled follow up necrosectomy session, was admitted to a local hospital where he died during the hospital stay 20 days after the last necrosectomy session. Considering this a death from necrotic pancreatitis, the mortality rate from severe necrotizing pancreatitis with WOPN was 6.6%. Surgery was required in one patient who 5 months after initial necrosectomy failed to improve and was treated surgically for a resistant pancreatic duct obstruction. Conclusion: A natural orifice transluminal approach to WOPN is associated with a low mortality rate, short length of hospital stay and excellent clinical outcome.

Su1267

Systematic Evaluation of the Efficacy and Safety of Different Anti-Infective Methods for Transgastric Notes Procedures: A Randomised Controlled Trial in a Porcine Survival Model

Mark Ellrichmann¹, Shantiswaroop Dhar¹, Amrita Sethi², Klaus-GERD Hadelers³, Erich Kahle³, Frauke Seehusen⁴, Annette Fritscher-Ravens¹

¹Medical Department I, University Hospital Schleswig-Holstein, Campus Kiel, Kiel, Germany; ²Interventional Endoscopy, Columbia University Medical Center, New York, NY; ³Department of Biotechnology, Institute of Animal Breeding, Mariensee, Germany; ⁴Department of Pathology, University Veterinary Medical School, Hannover, Germany

Introduction: In many natural orifice transluminal endoscopic surgery (NOTES) interventions the peritoneal cavity (PC) is accessed through the gastrointestinal wall. While the endoscopes pass through the oral cavity and stomach they may carry some natural bacteria with them into the sterile environment of the PC. Thus, infections may represent a major risk of such procedures. Only limited and conflicting data are available regarding the efficacy of prophylactic anti-infective treatments. **Aim:** To prospectively examine the efficacy and safety of different anti-infective means of bacterial decontamination to identify the best way of infection protection for a transgastric NOTES procedure. **Methods:** 30 pigs (30-37kg) were randomized into one control (1) and 4 study groups (2:oral lavage; 3:gastric lavage; 4:oral+gastric lavage; 5:im antibiotics). Oral/gastric lavage was performed with Octenisept immediately prior to the operation, i.m. Enrofloxacin was used for 3-day antibiotic prophylaxis post procedure. After gastric full-thickness wall incision a >45min intervention in the PC (liver tissue ablation) was performed. Bacteriology samples were taken from the oral cavity, stomach and PC prior and after NOTES surgery. Pre-procedure and -autopsy intra-abdominal lavage for bacterial cultures was taken under sterile conditions using mini-laparoscopy. The animals survived for 2 weeks, body weight, temperature, food intake and behaviour were noted. At autopsy, the macroscopic appearance of the PC was scored using an inflammation score (0=no infection; 1-mild erythema; 2-marked erythema, <3 abscesses ≤1cm; 3-severe erythema, multiple abscesses >1cm). **Results:** No complication occurred in any of the 30 procedures. No leakage of the gastric closure occurred. Significant rise in postoperative body temperature was observed in lavage groups 2-4 compared to baseline levels (p<0.01). The antibiotic group 5 stayed at baseline (p>0.05) and had a significant postoperative weight-gain (weightbaseline=31.7±0.7kg; weightantibiotic=51.2±4.4kg, p<0.001) compared to lavage groups 2-4. At autopsy, macroscopic inspection of the PC revealed a significantly higher rate of abscesses (lavage groups 2,-4) when compared to the antibiotic group (50%:score 1). There was no difference between the lavage groups. Histology confirmed macroscopic autopsy data. Data of bacteria involved to follow. **Discussion:** Our study proved antibiotic prophylaxis to be the therapy of choice for infection prevention of transgastric NOTES procedures and the only effective one. There was no difference between the different means of lavage and the control group. In addition, antibiotic prophylaxis provided the best clinical outcome. However, it is unclear whether animal data will translate 1:1 into humans.

Su1268

Comparison of Endoscopic Suturing Techniques for Closure of the Transgastric Entrance Site for Notes Procedures

Joseph R. Armengol*², Joan Dot-Bach², Monder Abusuboh Abadia², Jordi Armengol Bertroli², Miquel Masachs Peracaula², Anna Benages Curell², Panagiota Mavrogianni², Jose C. Salord², Sergey V. Kantsevoy¹

¹Institute for Digestive Health and Liver Disease at Mercy Medical Center, Baltimore, MD; ²Digestive Endoscopy, Vall D'Hebron University Hospital, Barcelona, Spain

Background: Endoscopic closure of the gastric wall incision created to enter the peritoneal cavity remains problematic. Several techniques (closure with endoscopic clips, T-bars, stapling devices, etc) have not achieved quality of

closure comparable to surgical suturing.**AIM:** To compare clinical and histological results of continuous suture line and interrupted stitches created by novel endoscopic suturing device in a randomized, prospective, controlled animal trial. **Methods:** Standard transgastric access to the peritoneal cavity was achieved utilizing gastric wall puncture with subsequent dilation with 20-mm CRE balloon. After brief peritoneoscopy the endoscope was withdrawn into the stomach and all animals were randomly assign to gastric incision closure with either continuous (4-6 sequential punctures of each site of the gastric wall incision with subsequent tightening and cinching of the suture line) or interrupted line of stitches (one puncture on each site of the incision with subsequent cinching). After completion of the suturing the stomach was insufflated with carbon dioxide and air-leak test was performed to prove air-tightness of the closure. All animals were survived for 14 days and then sacrificed for histological examination. **Results:** 16 survival animal experiments (8 in each group) were successfully completed. Suturing of the gastric wall incision was easily achieved and airtight in all animals. The mean time to complete continuous suture line was 7.43±2.59 minutes, the mean time to complete the closure with interrupted stitches was 10.49±3.80 minutes. There were no post-procedural complications in any animals. Postmortem examination revealed no signs of peritonitis or other intraperitoneal complications in both groups. Histological examination in all animals demonstrated complete transmural healing with good opposition of gastric wall layers. **Conclusion:** The novel endoscopic suturing device is easy to use, reliable and operator-friendly instrument. Closure of the gastric wall incision with continuous suture line was faster, but the clinical and histological results were equally successful in both groups.

Su1269

Split-Dose Sodium Picosulphate/Magnesium Citrate for Morning Colonoscopies Performed From 2 to 6 Hours After Fluids

Intake: Efficacy, Safety and Acceptance Compared to Bowel Cleansing the Day Before

Javier Molina-Infante*, Elisa Martin-Noguerol, Jesus M. Gonzalez-Santiago, Carmen Martinez-Alcala, Gema Vinagre Rodriguez, Moises Hernandez Alonso, Carmen Duenas, Belen Perez Gallardo, Jose M. Mateos Rodriguez, Miguel Fernandez Bermejo
Gastroenterology, Hospital San Pedro de Alcantara, Caceres, Spain
Background&Aims: A major disadvantage of split-dose regimen bowel cleansing is that patients scheduled for early morning colonoscopies are required to take half the dose at 2 or 3 am in order to minimize bronchoaspiration. We aimed to evaluate the efficacy and safety of a low-volume split-dose regimen for morning colonoscopies and to compare it to standard cleansing the day before. **Methods:** 129 consecutive outpatients undergoing colonoscopy were randomized to receive sodium picosulphate/magnesium citrate bowel cleansing the day before (n=64) or with split-dose regimen (n=65). Regarding this latter, the second-half was administered at 5:45 am with fluid intake up to 7 am for morning colonoscopies scheduled from 9 to 11 am, whereas it was administered at 6:45 am with fluid intake up to 8 for colonoscopies scheduled after 11 am. All the procedures were performed with nonanesthesiologist propofol sedation, whereas the Boston scale was used to assess the quality of bowel preparation. **Results:** All colonoscopies in the split-dose group were performed from 2 to 6 hours after fluids intake. Overall, bowel cleansing was significantly better for this group (6.8 vs. 5.3, p<0.001), as well as cecum (2 vs. 1.1, p <0.001), ascending colon (2.3 vs. 1.6, p<0.001) and transverse colon (2.7 vs. 2, p 0.004) cleansing. Similarly, a significant proportion of split-dose group patients had an excellent/good cleansing in all segments (57% vs. 17%, p<0.001). Patients having the preparation day before slept significantly longer (hours) (7.9 (5-11) vs. 6.5 (4-8.5), p<0.001), albeit only 6 patients in the split-dose group (9%) complained of getting up early. No bronchoaspiration pneumonia was detected in the entire cohort. **Conclusions:** Split-dose sodium picosulphate/magnesium citrate provided significantly better cleansing in the proximal colon. Starting the administration of the second half of split-dose regimen from 5.45 to 6.45 am, all morning procedures were safely performed.

Su1270

Discrete Event Simulation Modeling: A Valuable Tool to Optimize Endoscopy Unit Efficiency

Ziad F. Gellad*^{1,2}, Javad Taheri¹, Dariele Burchfield³, Kevin Cooper³, Sarah Lothrop⁴, Firas H. AL-Kawas⁴

¹Duke Clinical Research Institute, Duke University Medical Center, Durham, NC; ²Division of Gastroenterology, Durham VA Medical Center, Durham, NC; ³Paragon Analytical Solutions, Raleigh, NC; ⁴Division of Gastroenterology, Georgetown University Hospital, Washington, DC

Introduction: Increasing demand for endoscopic procedures, coupled with decreasing reimbursement, has necessitated improvement in endoscopy unit