

Conclusion: LDP seems to be safe in the Netherlands in this relative small group of selected patients, although the conversion rate was high. A nationwide training scheme for LDP (LAELAPS) has been developed.

O-26.

GSK-7975A prevents alcoholic acute pancreatitis by blocking store-operated Ca²⁺ entry

Li Wen^a, M.Ahsan Javed^a, Michael Chvanov^b, Muhammad Awais^a, John Barrett^c, Malcom Begg^c, David. N. Criddle^b, Alexei Tepikin^b, Robert Sutton^a

^aNIHR Liverpool Pancreas Biomedical Research Unit, Royal Liverpool University Hospital, University of Liverpool, United Kingdom

^bDepartment of Cellular and Molecular Physiology, Institute of Translational Medicine, University of Liverpool, United Kingdom

^cRespiratory Therapy Area, GlaxoSmithKline, United Kingdom

Background: Inhibition of store-operated Ca²⁺ entry via the Orai1 channel with GSK-7975A prevents pancreatic acinar cell (PAC) injury. We sought to determine the effect of Orai1 inhibition in experimental acute alcoholic pancreatitis (AP).

Aims: To determine the effect of Orai1 inhibition with GSK-7975A on PAC injury induced by non-oxidative alcohol metabolites and with its pro-drug GSK-6288B on alcoholic AP.

Materials & methods: Necrotic cell death pathway activation induced by palmitoleic acid ethyl ester (POAEE) was assessed in freshly isolated murine PACs. AP was induced using palmitoleic acid (150 mg/kg/h IP x 2) with ethanol (1.35 g/kg/h IP x2) (FAEE-AP). GSK-6288B was administered subcutaneously by osmotic mini-pump (2001D) and pharmacokinetic (PK) profiles measured. AP severity was assessed by standard biochemical parameters and blinded histopathology.

Results: GSK-7975A (10 μ M) delayed the onset of necrotic cell death pathway activation induced by POAEE in murine PACs ($p < 0.05$). PK confirmed GSK-6288B consistently achieved drug levels of GSK-7975A in blood and pancreas. GSK-6288B at the dose of 110 mg/kg/h significantly reduced all AP severity parameters in FAEE-AP (all $p < 0.05$).

Conclusion: Orai1 plays a major role in PAC Ca²⁺ entry and injury in response to POAEE. This study suggests Orai1 inhibition has potential in the treatment of alcoholic AP.

O-27.

Predicting success of catheter drainage in infected necrotizing pancreatitis

Robbert A. Hollemans^a, Thomas Bollen^b, Sandra van Brunschot^c, Olaf Bakker^a, Usama Ahmed Ali^a, Harry van Goor^d, Marja Boermeester^e, Hein Gooszen^f, Marc Besselink^e, Hjalmar van Santvoort^a

^aDep. of Surgery, University Medical Center Utrecht, Netherlands

^bDep. of Radiology, St. Antonius Hospital Nieuwegein, Netherlands

^cDep. of Gastroenterology and Hepatology, Academic Medical Center Amsterdam, Netherlands

^dDep. of Surgery, Radboud University Medical Center Nijmegen, Netherlands

^eDep. of Surgery, Academic Medical Center Amsterdam, Netherlands

^fDep. of Operation Rooms/Evidence Based Surgery, Radboud University Medical Center Nijmegen, Netherlands

Background: Catheter drainage as the first treatment step of infected necrotizing pancreatitis is successful in at least 30% of patients. It is currently not possible to predict which patients will also need necrosectomy.

Aims: We evaluated predictive factors for success of catheter drainage in infected necrotizing pancreatitis.

Patients & methods: We performed a post-hoc analysis of 130 prospectively included patients who underwent primary catheter drainage for (suspected) infected necrotizing pancreatitis. Using logistic regression we evaluated the association between success of catheter drainage (i.e. survival without necrosectomy) and 22 factors regarding demographics,

disease severity (e.g. APACHE-II score, organ failure) and morphologic characteristics on CT (e.g. percentage/distribution of necrosis).

Results: Drainage was performed percutaneously in 113 patients and endoscopically in 17 patients. Infection was confirmed in 116 patients (89%). Catheter drainage was successful in 45 patients (35%). In multivariable regression, the following variables were associated with success of drainage: female gender (odds ratio[OR] 4.84; 95%-confidence interval[CI] 1.89-12.4; $P=0.001$), absence of multi-organ failure (OR 6.19; 95%-CI 1.50-25.53; $P=0.012$), percentage of pancreatic necrosis (<30%/30-50%/>50%: OR 2.29; 95%-CI 1.21-4.36; $P=0.011$), primarily left-sided pancreatic necrosis (OR 13.35; 95%-CI 1-174; $P=0.048$) and homogeneity of the collection (OR 5.23; 95%-CI 1.60-17.05; $P=0.006$). A prognostic nomogram including these factors yielded probability of success ranging from 99% (all factors present) to 1% (no factors present).

Conclusion: Female gender, absence of multi-organ failure, low percentage of necrosis, left-sided pancreatic necrosis and a homogeneity of the collection are independent predictors for success of catheter drainage in infected necrotizing pancreatitis. The constructed nomogram can easily predict success in clinical practice.

O-28.

A multicenter study on early administration of intravenous fluid bolus and outcome in acute pancreatitis

Enrique De-Madaria^a, Timothy B. Gardner^b, Georgios I. Papachristou^c, Mónica Rey-Riveiro^a, Mahya Faghih^d, Efstratios Koutroumpakis^c, Elham Afgani^d, Nelly G. Acevedo-Piedra^a, Nikhil Seth^c, Amitasha Sinha^d, Noé Quesada-Vázquez^a, Claudia Sánchez-Marin^a, Félix Lluís^a, David C. Whitcomb^c, Pedro Zapater^e, Vikesh K. Singh^d

^aPancreatic Unit, Hospital General Universitario de Alicante, Alicante, Spain

^bSection of Gastroenterology and Hepatology, Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States

^cDivision of Gastroenterology and Hepatology, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, United States

^dPancreatitis Center, Division of Gastroenterology, Johns Hopkins Medical Institutions, Baltimore, Maryland, United States

^eClinical Pharmacology, Hospital General Universitario de Alicante, Alicante, Spain

Background: Guidelines on acute pancreatitis (AP) recommend early and aggressive fluid resuscitation to improve outcome but this is not supported by direct evidence and may be detrimental.

Aims: To determine if early administration of intravenous fluid bolus in emergency room (IVFBER) is associated with improved outcomes in AP.

Patients & methods: Retrospective cohort study involving 1,010 adult patients with AP and detailed data on IVFBER from 4 centers in 2 countries (transferred patients were excluded). The patients were categorized into 3 groups according to the terciles of IVFBER, group A (reference category, 269 patients, 26.6%): 0 to 499 ml, B (427 patients, 42.3%): 500 to 1000 ml and C (314 patients, 31.1%): >1000 ml. Outcome variables were: local complications (pancreatic necrosis and/or peripancreatic fat necrosis and/or acute collections), persistent SIRS, persistent organ failure, need for nutritional support, invasive treatment, ICU admission, hospital stay and in-hospital mortality. Multivariate analysis was performed with those possible confounding variables at presentation: age>60, center of origin, SIRS criteria, hematocrit >44% and blood urea nitrogen>25 mg/dL.

Results: Group B had a significantly lower incidence of local complications ($p=0.04$, OR 0.59, 95% CI 0.36-0.96), persistent SIRS ($p=0.01$, OR 0.49, 95% CI 0.28-0.86), lower need for invasive treatment ($p=0.049$, OR 0.38, 95% CI 0.15-0.99) and nutritional support ($p=0.03$, OR 0.45, 95% CI 0.22-0.93) compared to group A on multivariate analysis. Group C was not associated with improved or worse outcome compared with group A.

Conclusion: The ER administration of a 500 to 1000 ml fluid bolus improves outcomes in patients with acute pancreatitis.