The effect of Hepatitis B virus infection on Steatosis in Hepatis C virus co-infected patients: the BOSTIC study 5

Nicolas Goossens (1), Nicola Coppola (2), Rosa Zampino (3), Maria Stanzione (4), Heiner Wedemeyer (5), Francisco Barrera (6), Beat Müllhaupt (7), Darius Moradpour (8), David Semela (9), Nasser Semmo (10), Raffaele Malinverni (11), Hans Hirsch (12), Markus Heim (12), Jacob George (6), Michael Manns (5), Luigi Elio Adinolfi (3), Laura Rubbia-Brandt (13), Francesco Negro (1,13)
(1) Department of Gastroenterology and Hepatology, and (13) Pathology, Geneva University Hospital, Geneva, Switzerland (2) Department of Public Medicine, (3) Internal Medicine and Hepatology, (4) Department of Clinical and Experimental Medicine and Surgery, Second University of Naples, Naples, Italy (5) Department of Gastroenterology, Hepatology and Endocrinology, Hannover Medical School, Hannover, Germany (6) Storr Liver Unit, Westmead Millennium Institute, University of Sydney at Westmead Hospital, Sydney, New South Wales, Australia (7) Division of Gastroenterology and Hepatology, University Hospital Zürich, Zürich, Switzerland (8) Division of Gastroenterology and Hepatology, University Hospital Lausanne, Lausanne, Switzerland (9) Division of Gastroenterology, Kantonsspital St. Gallen, St. Gallen, Switzerland (10) Hepatology, Department of Clinical Research, University of Bern, Bern, Switzerland (11) Hôpital Neuchâtelois, Neuchâtel, Switzerland (12) Division of Gastroenterology and Hepatology, University Hospital Basel, Basel, Switzerland

Background: We examined the influence of coinfection with HBV on prevalence and severity of different types of steatosis (i.e. viral vs metabolic) in chronic HCV.

Methods: We retrospectively assessed steatosis prevalence and severity in chronic HBV/HCV coinfected patients with a liver biopsy at time of coinfection. Exclusion criteria were excessive alcohol consumption, type 2 diabetes and antiviral therapy at time of liver biopsy. HCV-monoinfected controls were matched according to BMI, HCV viremia and genotype.

Results: 78 HBV/HCV coinfected patients and 115 HCV controls were included. Clinical characteristics of HBV/HCV coinfected patients were: average age: 42 years, males: 68%, average BMI: 25.1 kg/m^2, cirrhotic: 24%, genotype 3 HCV: 26%, undetectable HBV viremia: 31%. There was no significant difference in steatosis prevalence between the HBV/HCV coinfected group and the HCV group (42% vs 44%, p=0.40). When including only HCV genotype 3 patients with BMI <25 kg/m^2 (n=12 coinfected HBV/HCV) there was no difference in steatosis distribution and severity between coinfected and HCV monoinfected patients (p=0.28).

Conclusions: Based on these preliminary findings it appears that HBV is not affecting prevalence and intensity of steatosis in HBV/HCV coinfected patients vs HCV monoinfected patients, even in the subgroup of HCV genotype 3 patients with normal BMI.

Intraoperative microperfusion patterns during colorectal resection: Preliminary results of 18 patients. 7

Henry Hoffmann[1], Tarik Delko[1], Christian Nebiker[1], Marko Kraljevic[1], Juliane Schäfer[1,2], Rachel Rosenthal[1], Christoph Kettelhack[1]
[1]Division of Visceral Surgery, University Hospital Basel
[2]Basel Institute for Clinical Epidemiology and Biostatistics, University Hospital Basel

Background
Perfusion impairment at the anastomotic site is one of the most important risk factors for anastomotic leakage (AL). Visual assessment of intestinal microperfusion during surgery has been found to be inefficient to predict AL. Microperfusion patterns during surgery are unknown and reliable intraoperative assessment of intestinal microperfusion is not established yet.
Methods
Patients undergoing colorectal resection between July 2013 and March 2014 were recruited. Measurements using a Visible Light Spectroscope (VLS) were conducted during colorectal resection. Reference: at the caecum (M1) and proximal to planned resection (M2). After mobilization: proximal (M3) and distal (M4) to the planned resection. After anastomosis: 1-2cm proximal (M5) and distal (M6) to the anastomosis.
Results
18 patients with median age of 70y (IQR 56; 79) were included. Main operation was laparoscopic sigmoidectomy (n=9, 50%). Median duration of VLS measurement was 2:09 min (IQR 1:30, 5:45). The following median (IQR) serosal StO_2 were observed: M1: 67% (60; 70), M2: 66% (57; 68), M3: 71% (57; 76), M4: 68% (52; 74), M5: 70% (57; 75), M6: 69% (61; 76).
Conclusions
Intraoperative microperfusion patterns during colorectal resection show individual differences with a trend of increasing variability of StO_2 following mobilization and anastomosis. However, more patients need to be included to correlate serosal StO_2 levels with patient outcome and complications.

EUS-guided fine needle aspiration (EUS-FNA) in pancreatic masses: a prospective randomized study comparing the yeld of 22G and 25G needle in the same patient 6

Rocco Grignoli[1], Philippe Vaseur[1,2], Giacomo Puppa[3], Thai Nguyen[1], Muriel Genevay[3], Jean-Louis Frossard[1]
[1]Service of gastroenterology and hepatology, HUG-Geneva (CH) / [2]Service of gastroenterology, CHU Poitiers (F) / [3]Service of clinical pathology, Geneva (CH)

Introduction EUS-FNA has become a standard in pancreatic masses diagnosis. It can be performed with a 22G or a 25 G needle. It remains unclear if the 25G have the same diagnostic yield than the 22G. To evaluate it, we perform a prospective, randomized, double-blind, non-inferiority study
Patients and methods Patients presenting with pancreatic solid masses between July 2010 and June 2012 were included. They underwent EUS-FNA using a 22G needle and 25G needle during the same endoscopic session. Three passages without stylet were performed with each needle. The 25G and 22G needle sequence being randomized. Cytological preparations included smear cytology, ThinPrep and Cell Block. Specimens were analyzed for diagnosis, cellularity, amount of blood and digestive contamination. Final diagnosis was based on cytology report, surgical pathology if available, repeated diagnosis imaging and clinical follow-up.
Results 37 patients were included. For 34 malignant pancreatic neoplasms was the final diagnosis. Diagnostis yield of 25G and 22G needles were 85.3% (29 patients) and 88.2% (30 patients) respectively (p>0.05). The quality of specimens was comparable regarding cellularity, blood and digestive contamination. No complication occurred.
Conclusion Our study demonstrates the non-inferiority of the 25G needle's performance compared the 22G for the diagnosis of pancreatic masses.

CD62L (L-Selectin) Shedding for Assessment of Functional Blockade of TNF-Alpha in Anti-TNF Treated Inflammatory Bowel Disease Patients: Clinical Feasibility & Perspectives 8

Pascal Juillerat[(1, 2)], Peter M. Andrew[(2)], James Macpherson[(2)], Emma Slack[(2)], Nicola Patuto[(1,2)], Julia Cahenzli[(2)], Frank Seibold[(3,1)], Kathy D. McCoy[(2)], Andrew J. Macpherson[(1, 2)]
[(1)] Gastroenterology, Inselspital, Bern University Hospital, Bern; [(2)] Maurice Mueller Laboratories, Inselspital, Bern; [(3)] Gastroenterology, Tiefenauspital, Bern

Background: Tumor necrosis factor (TNF) inhibition is central to the therapy of inflammatory bowel diseases (IBD). However, the durability and efficacy of this blockade hasn't been well studied and a better understanding is crucial for the prognosis of long-term treatment and decision making in case of loss of response (LOR) to these costly drugs.
Methods: Consecutive IBD Patients receiving anti-TNF agents from Inselspital were identified and followed prospectively. Patient whole blood was stimulated with a dose-titration of either human TNF or the TLR agonist lipopolysaccharide (LPS) followed by flow cytometry. Median fluorescence intensity of CD62L on the surface of granulocytes. The change in EC50 (the concentration of TNF required to induce a 50% shedding of surface CD62L) following the anti-TNF agent, was used to predict the in vivo response, which was then correlated to the clinical evolution to analyze the ability of this test to identify LOR to Anti-TNFs.
Results: We collected prospective clinical data and 2 blood samples, before and after anti-TNF agent, on 33 IBD patients, 25 Crohn's disease and 8 ulcerative colitis patients (45% females) between mid-2012 and end 2013. The assay showed a functional blockade of TNF (PFR) for 22 patients (17 CD and 5 UC) whereas 11 (8 CD and 3 UC) had no functional response (NR) to TNF blockade. Clinical characteristics (e.g. diagnosis, disease location, smoking status and BMI) as well as # infusions were not significantly different between predicted PFR and NR. Among the 22 patients with PRF, only 1 patient was a clinical non responders (LOR to anti-TNF), based on clinical prospective evaluation by IBD gastroenterologists (PJ, FS and AM), and among the 11 predicted NR, 3 had no clinical LOR. Sensitivity of this test was 95% and specificity 73% and AUC adjusted for age and gender was 0.81. During follow up (median 10 months, range 3-15) 8 "hard" outcomes occurred (3 medic. flares, 4 resections and 1 new fistula) 2 in the PFR and 6 in the NR group (25% vs. 75%; p<0.01).
Conclusions: CD62L (L-Selectin) shedding is the first validated test of functional blockade of TNF alpha in anti-TNF treated IBD Patients and will be a useful tool to guide medical decision on the use of anti-TNF agents. Studies with ATI and trough level of the drugs are ongoing.