

GASTROENTEROLOGÍA

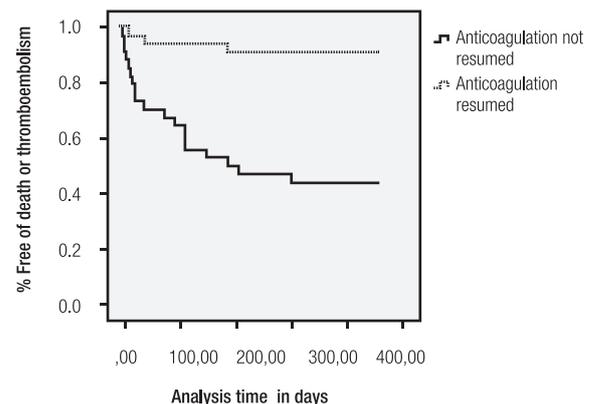
RISK OF DEATH AND THROMBOEMBOLISM IN PATIENTS THAT DO NOT RESUME ANTICOAGULATION AFTER AN EPISODE OF PEPTIC ULCER BLEEDING

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Abstract Body: Introduction: Peptic ulcer bleeding is a medical emergency with 5-10% mortality. In patients receiving anticoagulation the gastrointestinal tract is a frequent source of bleeding. Resuming anticoagulation and the safest time to do so is controversial. **Objectives:** The main objective was to compare overall survival and time to thromboembolic events at one year, as a combined outcome, between patients that resumed and did not resume anticoagulation after an index episode of peptic ulcer bleeding (PUB). The secondary objective was to compare time to recurrent PUB. **Methods:** We conducted a retrospective cohort study using administrative and clinical databases from a teaching hospital. Adults (> 18 years) that were receiving anticoagulation and suffered an index episode of PUB between January 2005 and January 2013 were included. Patients were divided into two groups according to whether they resumed or not anticoagulation. Kaplan-Meier curves were constructed to estimate the survival function of death or thromboembolism and recurrent PUB between groups. A propensity score (PS) for anticoagulation resumption was estimated for each individual using binary logistic regression. Cox proportional hazards modeling was used to adjust for potential confounders. Patients who died within 72 hours of the PUB episode were excluded to limit the effect of PUB severity on death. **Results:** Seventy-one patients were included, 44 (62%) were male and median age was 79 years (IQR, 72-84). Atrial fibrillation was the main indication for anticoagulation (n=47, 66.2%) and acenocumarol was the most commonly prescribed drug (n= 61, 85.9%). Twelve patients (16.9%) had active bleeding at presentation. Thirty-six subjects (50.7%) resumed anticoagulation. Median time to resumption was 17 days (IQR, 5.25-41.75). Anticoagulation resumption was associated with a lower risk for death or thromboembolism in a multivariate analysis that controlled for PS and other potential confounders (hazard ratio [HR], 0.08; 95% CI, 0.018-0.4). The risk of recurrent PUB was not significantly increased when anticoagulation was resumed (HR, 1.9; 95% CI, 0.17-21). **Conclusions:** We found that not resuming anticoagulation after an episode of PUB is associated with increased risk for death and thromboembolism, whereas the risk for recurrent PUB is not significantly higher. Therefore, it seems that the benefits of resuming anticoagulation outweigh the risks. Further research is needed.

Characteristic	Overall cohort (n= 71)	Resumed anticoagulation (n= 36)	Did not resume anticoagulation (n= 35)	p Value
Age, median (IQR)	79 (72-84)	77 (72-82,75)	80 (75-85)	.1
Male, No.	44 (62)	23 (63.9)	21 (60)	.8
INR at presentation, median (IQR)	3.9 (2.5-8)	3.25 (2.2-6.9)	4.27 (2.5-8.2)	.15
Charlson Comorbidity Index, median (IQR)	4 (2-7)	4 (2-6.75)	3 (2-7)	.8
Risk factors	.	.	.	.
Heart failure	26 (36.6)	11 (30.6)	15 (42.9)	.3
Cardiovascular disease	31 (43.7)	16 (44.4)	15 (42.9)	.9
Chronic kidney disease	21 (29.6)	11 (30.6)	10 (28.6)	.8
Cancer	12 (16.9)	6 (16.7)	6 (17.1)	.97
Diabetes mellitus	18 (25.4)	10 (27.8)	8 (22.9)	.79
Hypertension	65 (91.5)	34 (94.4)	31 (88.6)	.45
Smoking	25 (35.2)	14 (38.9)	11 (31.4)	.62
Aspirin use	17 (23.9)	10 (27.8)	7 (20)	.6
NSAIDs use	15 (21.1)	9 (25)	6 (17.1)	.56
Indication for anticoagulation	.	.	.	.
Atrial fibrillation	47 (66.2)	25 (69.4)	22 (62.9)	.62
Venous thromboembolis m	13 (18.3)	4 (11.1)	9 (25.7)	.13
Prosthetic heart valve	5 (7)	5 (13.9)	0	.54
Other	5 (7)	2 (5.6)	3 (8.6)	.36
Days from anticoagulation initiation, median (IQR)	730 (240-1275)	735 (210-1445)	700 (240-1236)	.82
Days to anticoagulation resumption, median (IQR)	17 (5.25-41.75)	17 (5.25-41.75)	NA	NA
PUB severity	.	.	.	.
Active bleeding	12 (16.9)	5 (13.9)	7 (20)	.54
Hemodynamic instability	26 (36.6)	12 (33.3)	14 (40)	.63
Admission to the ICU	39 (54.9)	19 (52.8)	20 (57.1)	.81
Transfusion requirement	55 (77.5)	26 (72.2)	29 (82.9)	.4
Outcomes	.	.	.	.
Death or thromboembolis m	22 (31)	3 (8.3)	19 (54.3)	<.001
Recurrent PUB	3 (4.2)	2 (5.6)	1 (2.9)	.57

Time to outcome according to resuming anticoagulation status



ATTACHMENT STYLES IN PATIENTS WITH IRRITABLE BOWEL SYNDROME (IBS), AND THEIR RELATIONSHIP WITH IBS SEVERITY AND SUBTYPES

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Abstract Body: Background: Irritable Bowel Syndrome (IBS) is a functional gastrointestinal disorder that negatively affects the quality of life. The social sphere is one of the most affected areas as the severity of symptoms of a stigmatized condition leads to social isolation and conflicts with others. Interpersonal relationships, additionally, can be a source of stress or an emotional support, with the consequent impact on the disease. Attachment paradigm is based on the concept that the loss of selective and stable bonding is detrimental to the maintenance of well-being. Little is known about the relationship between attachment styles and IBS, IBS severity and subtypes. **Objectives:** A) To describe and compare attachment styles in a group of IBS patients and healthy volunteers (HV). B) To evaluate if there is any association between the severity of IBS symptoms, IBS subtypes and IBS attachment styles. **Materials and Methods:** IBS patients and HV, all >18 years, were consecutively included. Major depression, delusional disorders, psychosis and /or treatment with antipsychotics were exclusion criteria. The study, with its cross-sectional and comparative design, was developed in the motility lab and mental health service of the Gastroenterology Hospital, in Buenos Aires, between June 2013 and November 2014. The severity of IBS symptoms questionnaire (IBS-SSS) and the interpersonal relationships questionnaire (ECLS) validated into Spanish were administered. Ethics: the protocol was approved by the local IRB. Statistical analysis: VCCSTAT 2.0. Medcalc 11.06., 95%CI; X2 test. **Results:** We included 50 patients and 20 HV. The demographic characteristics of the sample are described in the table. Education and offspring were different between groups ($p<0.05$). The main IBS subtypes were IBS-C and IBS-U, 36% each, followed by IBS-D 16% and IBS-M 12%. Most patients experienced moderate 42% (21/50) and severe 38% (19/50) symptoms. No relationship between age, subtypes and severity of symptoms was observed, however, moderate symptoms were predominant in women ($p<0.05$). A) Patients' attachment

styles were: 36% (95%CI 23-50; 18/50) preoccupied, 34% (95%CI 21-48; 17/50) fearful-avoidant, 22% (95%CI 12-36; 11/50) secure, 8% (95%CI 2.2- 19; 4/50) dismissive-avoidant. Fearful and secure attachment styles were more prevalent in patients and HV, respectively ($p<0.05$). B) No association between age, gender, subtypes, symptom severity and attachment styles was observed ($p=ns$). **Conclusions:** The predominant attachment styles were fearful in IBS patients and secure in HV. No relationship between age, gender, IBS subtypes and severity of symptoms and attachment styles was observed. Such findings suggest that attachment styles should be considered in the clinical management of IBS patients.

Demographic characteristics of the sample				
Demographic characteristics	HV N (%)	IBS N (%)	p	
Age mean \pm SD (years)	36 \pm 10.27	40.70 \pm 14.41	ns	
Females	15 (75)	38 (76)	ns	
BMI mean \pm SD (Kg/m ²)	23.65 \pm 3.25	23.5 \pm 3.5	ns	
Education	Primary school	1 (5)	8 (17)	ns
	Secondary school	1 (5)	25 (52)	<0.05
	Tertiary school	-	1 (2)	ns
	University	14 (70)	7 (14.5)	<0.05
	Postgraduate	4 (20)	7 (14.5)	ns
Occupation	Housewife	-	9 (18)	ns
	Employed	18 (90)	35 (71)	ns
	Unemployed	-	1 (2)	ns
	Student	1 (5)	1 (2)	ns
	Retired	1 (5)	3 (6)	ns
Marital status	Single	4 (20)	10 (20.5)	ns
	Married	9 (45)	13 (26.5)	ns
	Cohabitant	2 (10)	13 (26.5)	ns
	Widow	-	4 (8)	ns
	Separated	2 (10)	6 (12)	ns
Offspring	Divorced	2 (10)	3 (6)	ns
	Yes	3 (15)	27 (55)	<0.05
	No	17 (85)	23 (50)	ns

NIGHT TIME ACID CLEARANCE PREDICTS SLEEP DISTURBANCE IN THE GASTROESOPHAGEAL REFLUX DISEASE

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Introduction: Gastroesophageal reflux disease (GERD) is often associated with sleep disorders. These may interfere with the quality of life of these patients and could be linked to a distinctive pattern of pathologic reflux measured by 24-hour pH monitoring. **Objective:** To analyze the pH-metric variables that are associated with clinical sleep disorders. **Materials and methods:** In a control-case study were evaluated 45 patients with GERD symptoms from April 2013 to January 2014, who underwent 24-hour pH monitoring. In addition, we evaluated using a questionnaire the presence or absence of sleep related symptoms. They were divided into two groups for comparison according to the presence or absence of problems sleeping, excessive snoring, nocturnal awakenings and daytime sleepiness. The characteristics of pH monitoring variables between the two groups were compared. Fisher's test was used to compare categorical variables. Student t test or the Mann-Whitney test (for nonparametric variables) was used for comparison of numerical variables. It was considered as significant a value of

less than 0,05. **Results:** The group with sleep disorders included 35 subjects (mean age 49 ± 13 ; 46% male) and the other included 15 subjects (mean age 53 ± 14 ; 54% male). In comparative analysis, no significant difference was observed in the percentage of total time with pH less than 4, percentage of night time with pH less than 4, percentage of day time with pH less than 4, the number of reflux episodes and number of episodes nocturnal reflux. Significant difference was observed in the duration of the longest reflux episode during the night, where in the group of patients with symptoms had a median of 5 minutes (interquartile range 25-75% 0-26 minutes) and in the group without symptoms was 1 minute (0- 6 minutes) ($p = 0.05$). **Conclusions:** Only the duration of episodes of nocturnal gastroesophageal reflux is associated with the presence of symptoms of sleep disturbance. Therefore, it is possible that alterations in acid clearance during night time are the major determinant of the disturbance of sleep linked to GERD.

IS THE RESPONSE TO HEPATITIS B VACCINE DIFFERENT IN ADULT CELIAC DISEASE ?

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Abstract Body: Vaccination is an effective protection against Hepatitis B (HBV) infection. Between 90-95% of adult population response to HBV vaccination. Some studies, mainly retrospective and in children, suggest a higher unresponsiveness rate to HBV vaccine in Celiac Disease (CD). Several hypothesis explaining this higher rate of unresponsiveness have been described, such as genetic haplotype (HLA B8,DR3,DQ2) or gluten intake as a cause of failed immunity at the time of vaccination. On the other hands, studies in children suggest that the compliance with a Gluten Free Diet (GFD) improve the immune response to HBV vaccine and is not different from a healthy population. **Objetives:** The aim of this study was to evaluate the response to HBV vaccination in adult CD patients following a strict GFD. **Material and methods:** Prospective-controlled study that included 65 CD patients and 62 healthy age-sex and body mass-matched controls. Screening

for HBV serology was carried out before vaccination. Susceptible patients received 20 ugr recombinant DNA HBV vaccine (0,1 and 6 month) by intramuscular injection. Postvaccination serologic evaluation was performed 1 month after the last dose of primary vaccination. All CD patients were following a strict GFD at least for 1 year. GFD compliance were monitored by measurement antibodies against transglutaminase and endomysium. **Results:** 51/65 (78%) CD patients and 60/62 (96%) healthy controls achieved seroprotection (antiHBS titers > 10 mui/ml). The difference between CD patients and controls was statistically significant ($P < 0.01$, 95% confidence interval 0.66-0.87). 8 CD patients non responders received a booster dose an 7 seroconverted. **Conclusions:** The response to HBV vaccine in adult CD patients who were compliant to GFD is different from a healthy population. Genetic factors may have a primary role.

ASSESSMENT OF PATHOPHYSIOLOGY OF PATIENTS WITH FECAL SEEPAGE

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Abstract Body: Background: Fecal incontinence is a silent affliction underreported. The patients with fecal soiling describe the unintentional seepage of small amounts of stool material or report fecal staining of undergarments, often a few minutes or hours after an otherwise normal defecation. Passive postdefecatory incontinence is poorly understood and yet is an important clinical problem. Its treatment has remained unsatisfactory. **Objective:** The aim of this study was to characterize the pathophysiology of postdefecatory incontinence in patients affected by faecal soiling. **Material and Methods:** We evaluated prospectively 20 patients with faecal seepage between July 2013 to July 2014. Sixteen patients (16/20) 80% were male. Mean age was 53 (27-71) years old. After a preliminary clinical evaluation, including the Rome III Criteria for obstructed defecation, Wexner Score for Faecal Incontinence and the Obstructed Defecation Syndrome (ODS) Score, all patients underwent endoanal ultrasound and anorectal manometry. The results of their studies, including mean resting pressure, maximum resting pressure, maximum squeezing pressure, minimum rectal sensory volumen and minimum volumen at wich reflex relaxation occurs were compared with 20 patients with fecal incontinence. **Results:** A significantly higher ODS score was noted in patients with fecal seepage ($P < 0.01$). They had symptoms of impaired defecation. Endoanal ultrasound revealed a significantly diffuse thinning of the internal anal sphincter in the incontinent group than the seepage group. In this group, the resting and squeeze sphincter pressures were lower than normal values but higher than incontinent group ($P < 0,02$). The straining test was considered positive in 73% of patients with fecal seepage. A significantly higher conscious rectal sensitivity threshold was found in the seepage patients. **Conclusions:** Anal sphincter function and rectal reservoir capacity were preserved in patients with seepage, but most of them demonstrated dys-

synergic defecation and either had higher ODS score, a positive straining test and high conscious rectal sensitivity threshold. Thus, an incomplete evacuation of bowel contents may play a more significant role in the pathogenesis of fecal seepage than sphincter dysfunction.

Clinical characteristics of the patients		
	Seepage group	Incontinent group
Hard Stool (Bristol 1-2)	4	2
Normal Stool (Bristol 3-4)	12	8
Loose Stool Consistency (Bristol 5-6-7)	4	10
ODS Score	10,7	2
Wexner Score	14	12

Results of endoanal ultrasound and anorectal manometry		
	Seepage group	Incontinent group
IAS thickness	3	1.8
EAS thickness	4,5	3,7
Maximum resting anal sphincter pressure (mmHg)	61,3	42,7
Maximum anal sphincter squeeze pressure (mmHg)	114	80,3
Threshold volume for first sensations	20	10
Threshold volume for desire to defecate	50	40
Ballon expulsion test	70%	20%

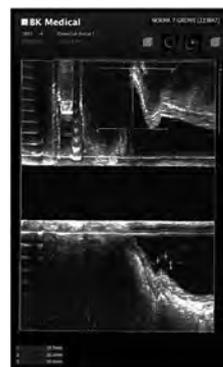
COMPARISON BETWEEN DEFECOGRAPHY AND ECHODEFECOGRAPHY IN THE ASSESSMENT OF ANORECTAL DYSFUNCTION IN PATIENTS WITH OBSTRUCTED DEFECATION

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Abstract Body: Background: Defecography is the goldstandard for assessing functional anorectal disorders but is limited by the need for a specific radiologic environment, exposure of patients to radiation, and inability to show all anatomic structures involved in defecation. Echodefecography is a 3-dimensional dynamic ultrasound technique developed to overcome these limitations. **Objective:** This study was designed to validate the effectiveness of echodefecography compared with defecography in the assessment of anorectal dysfunctions related to obstructed defecation. **Material and Methods:** From May 2010 to May 2014 women with symptoms of obstructed defecation were included in the study. They performed defecography and echodefecography. Defecography was performed after inserting 150ml of barium paste in the rectum. Echodefecography was performed with 2050 endoprobe with 3 automatic scans. The kappa index was used to assess agreement between echodefecography and defecography in the evaluation of rectocele, intussusception, anismus, and grade III enterocele. **Results:** 24 women with symptoms of obstructed defecation performed the 2 studies in the assessment of pelvic floor disorders. Median age 56,7 (range 30-71) years. Rectocele was identified with almost perfect agreement between the 2 methods (defecography 20 patients, echodefecography, 20 patients; $k=0,83$; 95% CI= 0,61-0,93). Defecography identified rectal intussusception in 12 patients, with echodefecography identifying 13 patients ($k=0,61$; 95% CI=0,48-0,73). There was substantial agreement for anismus ($k=0,79$; 95% CI=0,52-0,93). Agreement for grade III enterocele was classified as almost perfect ($k=0,92$; 95% CI=0,81-1,0). **Limitation:** Echodefecography had limited us in identification grade I and II enterocele because they are above the pubococcygeal line. **Conclusion:** Echodefecography may be used to assess patients with obstructed defecation, as it is able

to detect the same anorectal dysfunctions found by defecography. It is minimally invasive and well tolerated, avoids exposure to radiation, and clearly demonstrates all the anatomic structures involved in defecation. **Key Words:** Ultrasonography, echodefecography, obstructed defecation, rectocele, anismus, rectal intussusception.

Agreement between echodefecography and defecography regarding diagnosis of enterocele grade III			
Defecography	Echodefecography		Total
	No enterocele grade III	Enterocele grade III	
No enterocele grade III	19	1	20
Enterocele grade III	0	4	4
Total	19	5	24



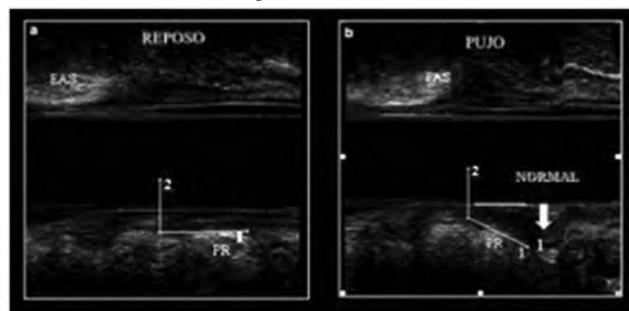
ASSESSMENT OF PELVIC FLOOR DYSSYNERGIA RELATED TO OBSTRUCTED DEFECTION BY ANORECTAL MANOMETRY AND DYNAMIC 3-DIMENSIONAL TRANSRECTAL ULTRASONOGRAPHY: COMPARATIVE STUDY OF THE USEFULNESS OF BOTH METHODS

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Abstract Body: Objective: To assess the degree of agreement between anorectal manometry and dynamic pelvic floor ultrasound (Echodefecography) by calculating kappa index in patients with symptoms of obstructed defecation. **Material and Methods:** Anorectal manometry and echodefecography were performed in patients with obstructed defecation symptoms between May 2011 and May 2014. When the anorectal manometry was performed, the pressures during attempted defecation were recorded. Dyssynergic pattern was defined if a rise in pressures was noted. When the echodefecography was performed, the angle between the internal edge of the puborectalis with a vertical line according to the anal canal axis was calculated at rest and during straining. Normal relaxation was defined as an increase in the angle more than 1.0 and paradoxical contraction (anismus) was defined as a reduction of more than 1.0. **Results:** Anorectal manometry and echodefecography was performed in 89 patients with defecatory disturbances symptoms. Male:female 9/80, the mean age of patients was 57 years old (range 25-78). The assessment of the degree of agreement or concordance between dynamic ultrasound and anorectal manometry yielded a kappa index of 0.87 (very good agreement) with statistically significant results ($p=0.05$). **Conclusion:** Ultrasonography may be used to assess patients with obstructed defecation, as it is able to detect the same anorectal dysfunctions found by another pelvic floor studies. It is a minimally invasive, well tolerated method, and avoids exposure to radiation. Although both methods shows very good agreement with each other they can't replace them since both methods have false positive results. **Key Words:** Echodefecography, anismus, anorectal manometry.

Results of both methods			
		Anorectal manometry	
		Positive	Negative
Echodefecography	Positive	54	11
	Negative	13	11

Figure 1. a (Resting position) - Normal patient. Angle formed by the confluence of a line traced parallel with the internal edge of the puborectalis muscle (line 1) and another vertical line according to the anal canal axis (line 2). b. (Straining) - Normal patient. Angle formed by the confluence of a line traced parallel with the internal edge of the puborectalis muscle (line 1) and another vertical line according to the anal canal axis (line 2).



REFLUX SYMPTOMS IN PATIENTS WITH CELIAC DISEASE ARE ASSOCIATED WITH ALKALINE OR MILDLY ACIDIC REFLUX

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Background/aims: Gastroesophageal reflux symptoms (RS) are frequently found in patients with active celiac disease (CD) and they revert with the gluten-free diet. Although previous studies have suggested that abnormal esophageal motility may underlie RS, motor abnormalities have not been consistently confirmed. Moreover, no studies have explored esophageal function in CD patients by combining functional tests such as esophageal pH-impedance and manometry. **Aim:** To evaluate esophageal function in newly diagnosed patients with CD compared to non-celiac patients with reflux symptoms and healthy volunteers. **Methods:** CD patients (defined with Marsh III, or greater, and positive tTG) were assessed at the time of diagnosis independently of the presence of RS. A cohort of non-CD patients (negative tTG) with RS and healthy volunteers served as controls. The presence of RS was established by a sub-dimension in the Gastrointestinal Symptoms Rating Scale (GSRS), a cut off of ≥ 2 points was considered as moderate to severe RS. 24-hour ambulatory pH-impedance test was performed using Digitrapper PHZ (Sierra Scientific, Los Angeles, CA). Data on upright and supine reflux episodes, DeMeester score, reflux episode duration and type of reflux were recorded. Manometry was performed using a water-perfused system (Dentsleeve Pty Ltd, Parkside, South Australia). **Results:** Thirteen patients with CD and 13 controls were enro-

lled in the study. Nine out of 13 CD patients and 10 controls reported RS, while 3 were healthy subjects without RS. Ten out of 13 CD patients had abnormal pH-impedance results vs. 8 out of 10 non-celiac with RS. All healthy controls had normal pH-impedance test. More episodes of weakly acid and non-acid reflux ($p=0.03$) and longer episode duration ($p=0.01$) were observed in CD vs. controls with RS. Notably, 75% of CD patients presented alkaline or weakly acid reflux (both at upright and supine positions), while all symptomatic non-celiac patients presented dominantly acid reflux. The DeMeester score was normal in CD patients and lower compared with non-CD patients with RS. CD patients with or without RS had a similar LES pressure as healthy controls while non-CD patients with RS had lower LES tone ($p>0.04$). **Conclusion:** Differences in ambulatory pH-impedance were observed in CD patients compared to non-CD subjects, irrespective of the presence of RS. The type of reflux in CD patients was predominantly weakly acidic or non-acid, while in non-CD patients with RS the reflux was acidic. In CD patients, the LES pressure did not seem to play a major role in RS. The presence of mildly acidic or alkaline reflux in conjunction with the altered intercellular spaces previously demonstrated by us, may explain the presence of RS in CD.

LONG-TERM OUTCOME OF A SERIES OF PATIENTS WITH ULCERATIVE JEJUNITIS FROM A SINGLE TERTIARY INSTITUTION

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Abstract Body: Background/Aim: Ulcerative jejunitis (UJ) is a condition characterized by macroscopic, inflammatory ulcerations of the small bowel. It is usually considered as a severe complication of celiac disease (CD) and often diagnosed in patients with a refractory clinical course. There is a consensus about its difficult treatment and a poor prognosis. Our aim is to report clinical characteristics at diagnosis and the long-term clinical course of a series of patients attending a referral center. **Materials:** From 1991 to 2014, all patients diagnosed of UJ were enrolled in this analysis. Diagnosis of UJ was based on the presence of multiple typical ulcerations in the small intestine as shown by enteroclysis, enteroscopy, capsule endoscopy or surgery. Cases with lymphoma at diagnosis were considered if ulcers distant from the malignancy were present. Diagnosis of CD was based on the finding of a characteristic enteropathy (type III of Marsh) and positive CD-specific serology or histological response to the GFD. Type II refractory CD (RCD) was diagnosed if CD8- intraepithelial lymphocyte (IEL) count was above 50%. HLA-DQ haplotype was tested in all patients. Survival curves (Mantel-Cox log rank test) were tested for different events. **Results:** A total of 31 patients (21female; median age: 44yr) fulfilled criteria for diagnosing UJ and the median followup was 36 mo./patient (range 4 to 276). Follow-up time was lower in those diag-

nosed of type II RCD (pNS). Diagnosis of CD was confirmed in 29 cases. The remainder 2 patients had the characteristic HLA-DQ2 haplotype. According to the immunohistochemistry of biopsy samples, a type II refractory CD was diagnosed in 20 patients. Three of these patients were diagnosed of lymphoma within the first 6 mo. after diagnosing UJ. One additional patient (not type II refractory CD) developed a lymphoma during the follow-up. Mortality (n=7) was produced during the 3 years after diagnosis of UJ. Both 3- and 5-years survival were 62% and 91% (pNS) for the type II UJ and non-type II patients, respectively. Sepsis (n=3) and lymphoma (n=2) were the most relevant cause of mortality. Diverse treatment modalities were employed and 17 patients (14 type II) received intensive support + azathioprine for 1 year. Mortality of those treated with azathioprine was 36%. UJ relapsed in 90% of cases at 180 months irrespective of phenotype of RCD (pNS). **Conclusions:** UJ is a severe complication observed among CD patients. The long-term outcome is affected by the presence of an early mortality in type II refractory cases. A therapeutic conduct cannot be recommended but the addition of azathioprine for 1 year to an intensive treatment strategy was effective and had not shown severe outcomes in type II refractory CD cases. UJ is characterized by a high relapse rate in the long-term.

PREDICTORS OF PROGRESSION TO HIGH GRADE DYSPLASIA AND ESOPHAGEAL ADENOCARCINOMA DURING BARRETT'S ESOPHAGUS ENDOSCOPIC SURVEILLANCE

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Background: The likelihood of developing esophageal adenocarcinoma (EAC) in patients with Barrett esophagus (BE) is low. Identifying risk factors for BE progression may allow for a more rational surveillance strategy, stratifying patients according to their individual risk. Aim: To identify risk factors for progression to high grade dysplasia (HGD) or EAC in patients with BE undergoing endoscopic surveillance. **Methods:** A single center observational retrospective study was performed. Patients with BE were retrieved from the medical records of a teaching hospital in a ten year period (January 2004-October 2014). Patients who were endoscopically followed for at least one year were included. Clinical and demographic data (age, gender, personal and familial history of BE, EAC or other neoplasia, body mass index, smoking status) and BE's endoscopic characteristics (length of hiatal hernia, length of the BE segment and the presence of nodularity or visible endoscopic lesions in this segment) were assessed. Chi Square test was used to compare categorical variables. Cox regression analysis was performed to estimate the risk for dysplasia or adenocarcinoma

development (composite outcome). Risk was expressed in odds ratio (OR) and its corresponding confidence intervals 95% (CI). A p value ≤ 0.05 was considered statistically significant. **Results:** A total of 210 patients were included. The median age was 58 (32-93) years and 79% were men. Median follow-up was 51 months (SD \pm 32) with a median of 4.2 (2-14) endoscopies per patient. Five patients (2.5%) developed HGD or EAC during endoscopic follow-up, [4/5 (2%) HGD; 1/5 (0.5%) EAC]. The mean time of progression was 56 months (SD \pm 50). Age > 65 years at BE diagnosis (OR 9.7, 95% IC 1,01-234; p: 0.014), long BE segment (>3 cm) (OR 10.9, 95% IC 1.11-262; p: 0.009), presence of nodularity (OR 12.6, 95% IC 1,03-187; p: 0.009) and familial history of BE (OR 10, 95% IC 1,02-137; p: 0.02) were independently associated with an increased risk of developing HGD or EAC during surveillance. **Conclusion:** Patients presenting with older age at BE diagnosis, long segment, nodularity and family history of BE have an increased risk for progression to HGD and EAC and therefore should be considered for more intensive surveillance.

THE GLUTEN-FREE DIET PRODUCES AN INCREASED BODY MASS INDEX AND AN ABNORMAL WAIST CIRCUMFERENCE WHICH IS NOT RELATED TO THE COMPOSITION OF FOOD INTAKE

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Background/Aims: A gluten-free diet (GFD) is the only available long-life therapy for celiac disease (CD). Clinical presentation is diverse with few patients with underweight, while the great majority has either normal or overweight. In the general population, overweight causes increase in the waist circumference (WC), an anthropometric measurement associated to the cardiometabolic risk. However, this association has not been established in CD patients. Moreover, there are several evidences that suggest that these anthropometric changes are due to an unbalanced GFD as consequence of an inadequate food selection by patients. Our aims were double: (1) to determine body mass index (BMI) at diagnosis of CD, and (2) to assess changes in the BMI induced by treatment, and the WC and composition the food intake at least two-years after initiation of a GFD. **Materials and methods:** From July to November 2013, all adult patients with CD attending the ambulatory celiac disease clinic were enrolled in the study if they were on a GFD for at least 2 years. BMI (normal: 18.5–24.9 kg/m²) and WC (normal: women < 80 cm; men < 94 cm) were determined according to conventional measurements. The composition of food intake was estimated according to conventional formulas based on a food questionnaire by an expert nutritionist. **Results:** 56 consecutive patients (52 women; median age

48 years [range: 20-65]; time on a GFD: 5 years [range: 2-15]) were enrolled in the study. At diagnosis, 59% of patients had normal BMI, 25% had overweight or were obese, and 16% had underweight. Compared with findings at diagnosis, 93% of GFD treated CD patients had a significantly increased BMI (21 kg/m² [range: 14-36] vs. 24 kg/m² [range: 17-37], respectively; p<0.0001). Migration to a higher category was shown in 41% of patients. Twenty four out of 56 patients (43%) showed an abnormally high WC with an highly significant correlation with the final BMI (r=0.86; 95% CI: 0.77-0.92; p<0.0001). Our dietary analysis has showed that 71% and 86% of patients did not cover the daily recommendation of vegetables and fruits, and that 48% and 71% reported a higher cereal and simple sugar consumption than recommended, respectively. Nevertheless, anthropometric measures did not correlated with the composition of food intake. **Conclusions:** Our study evidences that a long-term GFD significantly increases BMI generating a migration to higher categories. The WC, an anthropometric surrogate of cardiovascular risk, correlated with overweight and is abnormal in 43% of patients. According to our observations, these anthropometric findings did not seem to be associated to the inadequate composition of food intake.

ADVANCED SYNCHRONOUS ADENOMA PREDICTS METACHRONOUS COLONIC NEOPLASIA IN FOLLOW-UP COLONOSCOPY OF PATIENTS WITH RESECTED COLORECTAL CANCER

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Abstract Body: Introduction: Patients with resected colorectal cancer (CRC) remain at a high risk for developing metachronous neoplasia in the remanent colectum. Identifying risk factors for metachronous neoplasia may allow for a more rational surveillance strategy, stratifying patients according to their individual risk. **Aim:** To determine the prevalence of, and risk factor for metachronous neoplasia after curative resection of colorectal cancer in patients undergoing colonoscopic surveillance. **Methods:** The baseline clinical and colonoscopic data and follow-up details of patients who had colonoscopic surveillance (>1 year) after curative colorectal resection between January 2004 and October 2014 in a teaching hospital were analyzed. Metachronous colonic lesion was defined as the presence of adenomas, advanced neoplastic lesions (ANL) (>75% villous component, high grade dysplasia or size>10mm) or CRC occurring after 12 months of the index colonoscopy.

Univariate and multivariate analyses were performed to identify risk factors for metachronous adenoma, ANL and CRC. **Results:** A total of 186 patients were included. The median age was 65 (30-90) years old and 55% were male. Median follow-up was 41 months (SD +/- 20) with a median of 2.9 (2-6) endoscopies per patient. Prevalence of metachronous adenomas, ANL and CRC was: 47/186 (25%), 17/186 (9%) and 6/186 (3%) respectively. Among the clinical and colonoscopic factors at baseline, presence of synchronous ANL on index colonoscopy was the only independent predictor of metachronous ANL (OR 1.80 CI 1.08-8.06, p 0.04) and CRC (OR 7.23 CI 1.09-59.3, p 0.02) during surveillance colonoscopy. **Conclusions:** Patients with ANL at baseline colonoscopy have higher risk of presenting ANL and CRC during endoscopic follow-up and therefore should be considered for more intensive surveillance.

AUTOPHAGY MEDIATES RESISTANCE OF PANCREATIC CANCER CELLS TO CHEMOTHERAPY THROUGH A NOVEL E2F1-P300-VMP1 PATHWAY

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Abstract Body: Autophagy is an evolutionarily preserved degradation process of cytoplasmic cellular constituents, which participates in cell response to disease. We characterized VMP1 (Vacuole Membrane Protein 1) as an essential autophagy related-protein that mediates autophagy in pancreatic diseases. VMP1 is induced by activated K-Ras and gemcitabine treatment in human pancreatic tumor cells. Moreover, VMP1 is over-expressed in poorly differentiated human pancreatic cancer. Here we characterize a new molecular pathway, mediated by VMP1, by which gemcitabine is able to trigger autophagy in human pancreatic tumor cells. We demonstrated that gemcitabine requires VMP1 expression to induce autophagy in highly resistant pancreatic cancer cells PANC-1 carrying activated K-Ras, but not in BxPC-3 cells that do not carry K-Ras mutation. Analysis of the mechanisms identified E2F1, a transcription factor that is regulated by the retinoblastoma pathway,

as an effector of gemcitabine-induced autophagy. E2F1 regulates the expression and promoter activity of VMP1. Chromatin immunoprecipitation assays demonstrated that E2F1 binds to the VMP1 promoter in PANC-1 cells. We also identified the histone acetyltransferase p300 as a modulator of this promoter activity. Our data show that the E2F1-p300 activator/co-activator complex is part of the regulatory pathway controlling the expression and promoter activity of VMP1 triggered by gemcitabine in PANC 1 cells. Finally, downregulation of VMP1 expression and pharmacological modulation of autophagy sensitize PANC-1 cells to apoptosis and diminish clonogenicity under gemcitabine treatment. Together, these data provide evidence of a transcriptional regulation mechanism of autophagy that integrates this cellular process into the complex network of events involved in PDAC chemoresistance.

P-GLYCOPROTEIN 170 (P-GP) FUNCTIONAL ACTIVITY IN PERIPHERAL BLOOD LYMPHOCYTES (PBL) ACCORDING CLINICAL RESPONSE IN IBD PATIENTS TREATED WITH ANTI-TNFS

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Introduction: Pgp, encoded by the MDR1 gene is a transmembrane, ATP-dependent, efflux pump, expressed in cells with barrier function and PBL. IBD share drugs Pgp influenced (as steroids, 6MP in leukemia cells) with other diseases. Pgp overexpression was implicated in highly active resistant RA (Tsumijima, Ann Rheum Dis 2008) induced by IL2 and TNF α , influencing steroid efflux from lymphocytes, reporting that a single infliximab (IFX) infusion overcame refractoriness with elimination of Pgp high expressing CD4⁺lymph., and recovery of dexametasonone in PBL with Pgp marked decrease. Pgp measure in PBL could be an early marker of AntiTNFs efficacy and Pgp activity could modify the efflux of concurrent Pgp substrates drugs. **Aim:** to study Pgp activity in PBL of IBD pts. treated with antiTNFs. **Methods:** Pgp functionality was evaluated in PBL of IBD and healthy controls (HC: n30), studied in 5 groups of IBD pts. (n123 recruited) of at least 10 CD/10 UC each: - Before and after 20 days of AntiTNF (IFX or ADA) in steroid refractory (Group 1) or thiopurine refractory (Group 2), - Before and after 3mo of 6MP in steroid refractory (group 3), - In Thiopurine sensitive (Group 4) and Steroid sensitive (Group 5). Response criteria: at 45 days of AntiTNFs or 3 mo. of 6-MP (CDAI: 70 points drop, Mayo score 3 points+30% drop) categorized in: remission (CDAI \leq 150, Mayo Sc. \leq 2) and partial response. Rhodamine123 (fluorescent Pgp substrate) efflux was studied by flow

cytometry, expressed by the behaviour of 2 markers defined by % of cells with different fluorescence levels: M1 (high fluoresc./ low Pgp pump activity), M2 (low fluoresc./Pgp high activity, used for the results). **Results:** (mean \pm SD): Major finding was a significant decrease of Pgp after AntiTNFs in total PBL (M2) in most of responder IBD patients (Δ -difference- in refractory vs. remission p: 0.030018, and 0.0023 for Groups 1 and 2, and vs. partial response p: 0.014 in group 2, Mann Whitney). **Basal:** (pre AntiTNFs) Pgp values of pts. with available post AntiTNFs measures according response (remission, partial response, refractory) were: Group 1 (n 20) 38.0 \pm 17.7, 44.6 \pm 8.4, 38.6 \pm 21.0 and Group 2 (n 23) 35.9 \pm 16.0, 34.8 \pm 9.9, 23.1 \pm 7.1. Post **AntiTNFs** (same criteria): 26.2 \pm 16.0, 29.0 \pm 12.1, 47.0 \pm 19.3 (Group 1) and 21.0 \pm 11.6, 22.3 \pm 11.5, 36.0 \pm 11.7 (Group 2). Pts. in 6MP monotherapy (n23) did not show significant Pgp changes. Pgp dropped after AntiTNFs in CD3 lymph. (only group 2 significant p<0.003) in remission vs. refractory pts. In B lymphocytes lower values post AntiTNFs (Group 1) were shown in responders as a trend. IBD post-treat Pgp values were lower than in HC (p<0.04). **Conclusion:** We found that AntiTNFs decreased Pgp activity in PBL of IBD pts., significantly associated with treatment response, justifying further research. It is possible that the transport of Pgp substrates can be modified by antiTNFs. MDR1 polymorphism typing is ongoing.

ENDOSCOPIA

WHAT IS PHYSICIANS COMPLIANCE TO BARRETT'S ESOPHAGUS SURVEILLANCE INTERVALS?

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Abstract Body: Introduction: Barrett's esophagus (BE) is a risk factor for esophageal adenocarcinoma (EAC) which prognosis depends on the stage at diagnosis. Several scientific societies have developed guidelines for BE surveillance for early detection of malignancy. Adherence to these guidelines includes following appropriate technique and intervals (IV). Technical aspects are difficult to apply and most studies focus on this topic's compliance. **Objective:** To estimate physicians' compliance to surveillance intervals in BE patients. **Materials and Methods:** Consecutive adult patients with ≥ 2 endoscopy procedures for BE surveillance in an open access endoscopy center, in Buenos Aires, Argentina, between October, 2009 and January, 2014 were included. EAC or BE's complications at index endoscopy, upper gastrointestinal surgery and missing data were exclusion criteria. **Design:** retrospective, descriptive and cross sectional study. **Procedures:** Patients were referred, predominantly, by internal medicine specialists, surgeons and gastroenterologists. Endoscopies were performed under sedation and with Olympus equipment (white light). Seattle protocol was carried out when possible and additional biopsies were taken according to the findings. BE was diagnosed in the presence of intestinal metaplasia. Compliance to surveillance IV recommended by the AGA was evaluated. IVs were classified as respected, shortened or extended. Respected IVs were considered when surveillance endoscopy was performed within the recommended interval $\pm 20\%$. **Ethics:** signed informed consent was obtained from all patients. **Statistical analysis:** VCCstat 2.0. CI 95%. **Results:** we included 155 patients (375 procedures); 72% male; mean age: 60.67 ± 12.33 years. They underwent a mean of 2.39 procedures/patient at a mean interval of 16 ± 8.53

months; 3.7 biopsies/patient. Endoscopic BE features are detailed in the table. Low grade dysplasia was diagnosed in 1 patient (0,64%); no patients presented High Grade Dysplasia or EAC during the follow up. Surveillance intervals recommended by the AGA were respected in 10% of patients; they were shortened in 89% and extended in 1%. Patients and intervals were also evaluated according to referrals and operators: 28% (n: 43) had the same referral and operator; 44,5%(n:69) had the same operator and 50%(n:78) had the same referral; all intervals were predominantly shortened, with no differences in the groups (p=ns). Referral specialties were endoscopists 38%, gastroenterologists 24%, clinicians 21% and surgeons 3,2%; no specialties were registered in 20%; the majority of the intervals were shortened, with no differences in the groups (p=ns). **Conclusions:** Surveillance compliance was low; most of the IVs were shortened. Reasons for this observation should be investigated.

Endoscopic characteristics of BE				
Endoscopic characteristics of BE		N (%)		
Hiatal Hernia		115 (73,5)		
Morphology	Circumferencial	<3 cm	71 (64,5)	110 (71)
		≥ 3 cm	39 (35,5)	
Tongue		45 (29)		
		155 (100)		

PREVALENCE AND ETIOLOGY FACTORS OF INTERVAL COLORECTAL CANCER: FIVE YEARS EXPERIENCE IN AN OPEN ACCESS ENDOSCOPY CENTER

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Abstract Body: Introduction: Early detection of Colorectal Cancer (CRC) improves survival. Currently, there are several national and international guidelines for adenomas and CRC screening and post polypectomy surveillance. The videocolonoscopy (VCC) is the recommended method for this strategy, but its effectiveness depends on the quality of the procedure and the operator's experience. However, in scenarios with high quality VCCs and trained endoscopists, there are patients who develop interval colorectal cancer (IV CRC). Several etiological factors have been studied and postulated for IV CRC. **Objectives:** 1. To estimate the prevalence of IV CRC in our population. 2. To describe the etiologic factors of these lesions. **Materials and Methods:** Adults referred for VCC were consecutively included. Incomplete studies, high risk for CRC (inherited syndromes, inflammatory bowel disease (IBD), personal history of CRC) and missing histology reports were exclusion criteria. The study took place in an outpatient gastroenterology centre between November, 2009 and May, 2014. **Design:** Retrospective, descriptive and cross sectional study. **Procedures:** The VCC were performed under sedation, with Olympus equipment. The colonic cleansing was performed with PEG or phosphates with/without bisacodyl. We defined IV CRC as follows: a) Misdiagnosed lesion: detected within 60 months of VCC index, and b) De novo: detected after 60 months of VCC index without previous lesion in the same basal segment. The other cases of CRC were considered as "prevalent CRC (P CRC). The etiology of IV CRC was classified as related to endoscopy, to the patient or to the tumor biology. **Ethics:** patients gave informed consent before procedures. **Statistical analysis:** VCCSTAT 2.0. CI95%. Chi2; Student T. **Results:** we included 45250 patients; caecal intubation rate (CIR): 96,5%; Adenomas Detection Rate (ADR): 18%. The overall prevalence of CRC was 0,9% (95% CI 0,8-1; n:411) and of IV CRC was 2,9% (95%CI 1,6-5; 12/411); average time between index VCC and the diagnosis of IV CRC: 21 months (2-48). IV CRC patients were older and reported more positive history of CRC polyps (p<0.05). Gender, positive family history of CRC, and diverticulosis were similar in both groups (p=ns). The endoscopic features of CRC in both

groups are described in the table. 2. Factors related to the endoscopy were the most common and included missed lesions (67%), inadequate colon assessment (deficient cleansing) (25%) and incomplete resection of lesions (8,3%). **Conclusions:** The prevalence of IV CRC was comparable with data from the literature. Factors related to the endoscopy were the most common cause of these lesions. The VCC quality indicators and endoscopists' training would be areas for improvement to reduce the incidence of these neoplasms.

Endoscopic features of prevalent and IV CRC				
		Prevalent CRC	IV CRC	p
Morphology	Elevated	63(16)	3 (25)	ns
	Protruding	136 (34)	3 (25)	ns
	Ulcerated	15 (4)	1 (8,33)	ns
	Stenosing	77 (19)	-	ns
	Polypoid	108 (37)	5 (41,6)	ns
Size (mm) x		31	19	<0.05
Location	Proximal colon	109 (27)	6 (50)	ns
	Distal colon	287 (72)	6 (50)	ns
	Proximal + Distal Colon	3 (1)	-	.
		399 (100)	12 (100)	.

A COMPARATIVE STUDY OF BARRETT ESOPHAGUS ASSESSMENT WITH NARROW BAND IMAGING AND HISTOLOGY: 5 YEARS EXPERIENCE

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Abstract Body: Introduction: The incidence of esophageal adenocarcinoma (EAC) is increasing worldwide. The standard surveillance for the early detection of dysplasia in Barrett's esophagus (BE) is difficult to implement, time consuming and associated to error sampling in 40-60%. Thus, new endoscopic imaging techniques such as NBI (Narrow Band Imaging) have been developed to increase the diagnostic yield by targeting biopsies. **Objectives:** 1. Compare the NBI to histology in patients with endoscopic suspicion of BE. 2. Describe BE mucosal and vascular patterns using NBI. **Materials and Methods:** adults ≥ 18 years with endoscopic suspicion of BE were consecutively included. Erosive esophagitis, coagulopathies, esophageal varices and/or scars, gastroesophageal resective surgeries, previous treatments for BE and missing histology were exclusion criteria. The study took place at an outpatient endoscopy center in Buenos Aires, Argentina, between November 2009 and February 2014. **Design:** observational, comparative and cross sectional study. **Procedures:** Olympus endoscopes Evis EXERA II GIF 160 and 180 were used (white light and NBI). Esophageal mucosal and vascular patterns were evaluated with NBI and compared to histology; the latter was considered the gold standard diagnostic method. BE was diagnosed in the presence of Intestinal metaplasia (IM). Ethics: the protocol was approved by the local IRB. **Statistical analysis:** SPSS 18. IC95; Chi square. **Results:** we included 482 patients; 59% (285/482) were male; mean age: 58.75 ± 11.36 years; (20-85). Hiatal hernia was present in 38.6%, and most patients had circumferential BE (78.6%) Table. IM was reported in 51% (245/482) and columnar metaplasia (CM) in 49% (237/482).

The S, E, PPV, NPV of villous pattern to diagnose IM were 59.8%, 62.1%, 69.1% and 52.1%, respectively. We observed an association between mucous pattern and histology in BE patients ($p < 0.05$). IM was observed in most patients with villous pattern. 2. The villous and flat mucosal patterns were more frequent in IM and CM, respectively (69% vs. 47% and 30% vs. 51.5%; $p < 0.05$). Regular vascular pattern was observed in 98% (472/482); irregular vascular pattern was observed in all patients with EAC (n: 3) and high-grade dysplasia (n: 1). **Conclusions:** Our results suggest an association between mucosal pattern observed with NBI and histology, being villous pattern most common in patients with IM.

Endoscopic features of BE			
Endoscopy features		n (%)	
Hiatal Hernia		186 (38.6)	
BE	Circumferential	379 (78.6)	Short 157(41.4) Long 52(13.7) Ultra-short 170(44.9)
	Tongues	103 (21.4)	
	Total	482 (100)	

TIMED SCREENING COLONOSCOPY: A RANDOMIZED TRIAL

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Background: Missed and recurrent adenomas are more likely to be in the proximal colon and insufficient detection of these lesions might explain the occurrence of a proportion of interval carcinomas. Studies have demonstrated increased detection of significant neoplastic lesions in colonoscopic examinations where the withdrawal time is 6 minutes or more, but there are no recommendations on how much time to spend in each colonic segment. **Objective:** To assess the difference in adenoma detection rate (ADR) between two colonoscopic withdrawal timed techniques. **Design:** Randomized trial. **Setting:** Tertiary academic center. **Patients:** Consecutive patients referred for screening colonoscopy, without prior colonoscopies in the last 10 years and prepared with polyethylene glycol (PEG) on a split dose regimen. Main Outcome measurements: ADRs for patients subjected either to a timed colonoscopy with fixed withdrawal times of a minimum of 2 minutes in the cecum and right colon, 1 minute in the transverse colon and 3 minutes in the left colon, or a standard timed colonoscopy with free withdrawal time of at least 6 minutes. **Results:** Sixhundred and thirty one patients were enrolled. Five were excluded because of incomplete colonoscopies (3 patients with Boston Bowel Preparation Scores [BBPS] of 0-1, and 2 patients with fixed angulations). Of the 626 patients included, 322 (51%) were randomized to the group with fixed withdrawal times (Group A) and 49% to conventional withdrawal (Group B). Median age was 57 years (SD 6), 251 patients (40%) were men

and the mean withdrawal time was 7:05 minutes (SD 1). Three hundred and eighty nine adenomas/serrated lesions were found in 230 patients (1,69 per patient), with 15 advanced lesions and 3 adenocarcinomas. Global ADR was 37.6% with no significant statistical differences between the two groups (36,8% vs 36,6%, $p 0,96$) respectively. On a bivariate analysis (Crude Odds Ratio [cOR]), the finding of adenomas was not related to either withdrawal technique (cOR 0,99 $p 0,96$) or the BBPS rating (cOR 0,91 $p 0,17$), but was associated to increasing age (cOR 1,03 $p 0,029$), male sex (cOR 1,6 $p 0,008$) and the time spent during withdrawal (cOR 1,32 $p < 0,001$). A multivariate analysis confirmed these findings with clear relation between the finding of adenomas and age (Adjusted Odds Ratio [aOR] 1,03 $p 0,02$), male sex (aOR 1,78 $p < 0,02$) and time of withdrawal (aOR 1,31 $p < 0,01$), while no association was seen with either withdrawal technique (aOR 0,80 $p 0,23$) or BBPS rating (aOR 0,94 $p 0,38$). There was no statistical significant difference between the two groups (21,7 % vs. 24,3%, $p 0,44$) concerning right-sided adenomas. Limitations: Single center study, and the difficulties in assessing the extent of each colonic segment. **Conclusion:** The variation of withdrawal timing techniques was studied and these results, with an ADR higher than current benchmarks, support the view that longer withdrawal times, even with fixed pre-established time per colonic segment, are associated with better proximal and distal adenoma detection.

DOUBLE BALLOON-ASSISTED DEEP ENTEROSCOPY FOR THE STUDY OF PATIENTS SUSPECTED OF COMPLICATED CELIAC DISEASE

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Background: Refractory celiac disease, ulcerative jejuno-ileitis and intestinal lymphoma are severe complications of celiac disease (CD). Since they significantly affect the survival of patients, early and accurate diagnosis is mandatory for prognosis and therapeutic approach. In recent years, double balloon-assisted deep enteroscopy (DBE) has led to improvement on the diagnosis of complications in CD. **Aim:** To evaluate the usefulness of DBE in patients with suspected CD complications. **Materials and methods:** a retrospective, multicenter and observational study was performed in 15 CD patients (9 female) collected from January 2011 to May 2014 in a specialized small bowel clinic. All patients underwent to DBE examination (Fujinon EN-450P5/20 Enteroscope) for suspicion of CD complications. Median age at diagnosis of CD was 46 yr. (range 31-64) and 50 yr. (range: 31-70) at the suspicion of complications. Symptoms and complementary image findings (ulcers, strictures, dilated loops or wall thickening) in enteroclysis examination (n=11), abdominal CT (n=13), video capsule endoscopy (VCE) (n=5), entero-CT (n=4) and positron

emission tomography (PET-CT scan) (n=5) were evaluated and compared to those findings of DBE. The most common symptoms of patients were: abdominal pain (73%), intestinal subocclusion (33%), chronic diarrhea (73%), and weight loss (80%). 20 EDB (10 anterograde, 4 retrograde and 3 antero-retrograde, based on location of previous observed lesions on other imaging studies) were performed. **Results:** Compared with finding from other complementary imaging studies, DBE agreed with in 50% of enteroclysis examinations, 92% of CT scans and 75% of the entero-CT and VCE. DBE detected lesions undiagnosed in 20% of enteroclysis and 8% of CT studies. In 6 patients there was a high suspicion of intestinal lymphoma by CT and/or PET-CT. In 3 of them there was no evidence of lymphoma at both, the histological examinations of DBE and the follow-up. In another 3 patients, the diagnosis of intestinal lymphoma was demonstrated by the biopsy performed at the DBE (n=2) or surgery. **Conclusion:** Our retrospective study confirms that DBE is a useful adjuvant tool for diagnosing complications in CD patients.

EASILY RECOGNIZABLE NON-MAGNIFICATION ENDOSCOPIC FEATURES HELP TO PREDICT THE PRESENCE OF DYSPLASIA IN MACROSCOPICALLY EVIDENT GASTRIC INTESTINAL METAPLASIA

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Abstract Body: Background: The presence of dysplasia in gastric intestinal metaplasia (GIM) requires a closer follow up and in some cases a different therapeutic approach. **Aim:** To identify clinical and endoscopic features able to predict the presence of dysplasia in patients with macroscopically evident GIM during upper GI endoscopy (UGIE). **Methods:** Patients undergoing an UGIE with Olympus GIF-H180 or GIF-H150 scopes in which the presence of GIM was suspected, were prospectively included in this study once this diagnosis was confirmed by pathology. GIM was suspected when mucosal areas showing an altered pit pattern resulting in a villous or wrinkled surface, with flat, depressed or elevated morphology, were identified in any part of the stomach. Patients with autoimmune gastritis or partial gastrectomy were excluded. Univariate and multivariate analysis were performed in order to determine which clinical and endoscopic features were associated with the presence of dysplasia. A p value > 0.05 was considered statistically significant and odds ratios (OR) with their corresponding 95% confidence intervals (CI) were calculated. **Results:** 94 patients harbouring GIM were included, average age: 63.3 years old (24-86), 52 (55%) were women, 28 (30%) were Asians (23 Koreans, 3 Japanese and 2 Chinese) and 66 Caucasians. Only 23 (24%) were Hp positive and 71 were negative, of which 27 had been previously eradicated and 40 were never treated; this information was

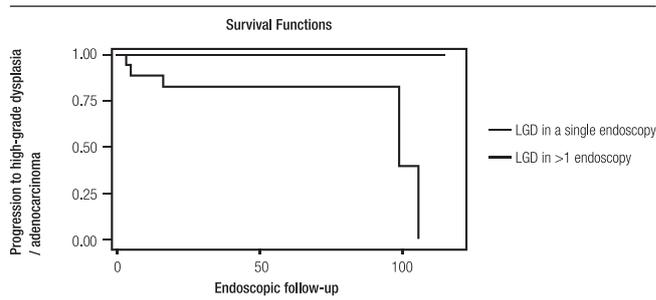
missing in the remaining 27. Twenty-eight (29.8%) showed dysplasia (low grade 25, high grade 3) in at least one of four anatomical regions of the stomach (corpus greater and lesser curvature, angulus and antrum). On univariate analysis the presence of dysplasia was associated with Asian origin (p: 0.02, OR 2.9 CI 1.04-8.4), at least one depressed metaplastic lesion (p: 0.001, OR 7.8 CI 2.6-24), more than one region of the stomach affected (p: 0.002, OR 4.4 CI 1.5-13), more than two regions of the stomach affected (p: 0.001, OR 6.4 CI 2.1-20), compromise of the oxintic mucosa (corpus either or both curvatures) rather than angulus and antrum (p: 0.02, OR 2.9 CI 1.06-7.9) and multiple lesions in 2 or more regions of the stomach (p: 0.001, OR 8.3 CI 2.6-27). On the other hand exclusive antral involvement reduced the chance of dysplasia (p: 0.04, OR 0.4 CI 0.1-0.9). Stepwise logistic regression analysis revealed that at least one depressed metaplastic lesion (p: 0.002, OR 5.4 CI 1.9-15) and multiple lesions in 2 or more regions of the stomach (p: 0.004, OR 5.3 CI 1.7-16) were independent predictors of dysplasia. **Conclusions:** Morphology, location and extension of GIM lesions as well as Asian origin of the patients are useful markers to predict the presence of dysplasia. A careful inspection of the entire gastric mucosa and aimed biopsies are essential to identify these patients.

RISK FACTORS FOR PROGRESSION TO HIGH GRADE DYSPLASIA OR ESOPHAGEAL ADENOCARCINOMA AMONG PATIENTS WITH LOW GRADE DYSPLASIA DURING BARRETT'S ESOPHAGUS ENDOSCOPIC SURVEILLANCE

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Abstract Body: Background: In patients with Barrett's esophagus (BE), low-grade dysplasia (LGD) is a risk factor for esophageal adenocarcinoma (EAC), progressing at variable rates. Published data about which patients with LGD will progress to high grade dysplasia (HGD) or EAC is inconsistent. Establishing risk factors for progression could benefit from intervention and surveillance. Aim: To identify risk factors for progression to HGD or EAC among patients with LGD during BE endoscopic surveillance. **Methods:** A single center observational retrospective study was performed. All data from patients diagnosed with BE with low grade dysplasia between January 2004 and October 2014 were retrieved from medical records of a teaching hospital. Patients who had at least two follow-up endoscopies were included. Clinical and demographic data (age, gender, personal and familiar history of BE, EAC or other neoplasia, body mass index and smoking status), BE's endoscopic characteristics (presence and length of hiatal hernia, length of BE, presence of nodularity or visible endoscopic lesions) and persistence of LGD (more than 1 endoscopy with LGD) were assessed. Chi Square test was used to compare categorical variables to estimate the risk for HGD or adenocarcinoma development (composite outcome). Risk was expressed in odds ratio (OR) and its corresponding 95% confidence intervals (CI). A p value ≤ 0.05 was considered statistically significant. **Results:** A total of 42 patients were included. The median age was 61 (37-93) years old and 69% were men. Median follow-up was 42 months (SD+/- 31). Five patients (12%) showed progression. All of them developed HGD and none EAC. The mean time of progression was 40 months (SD+/-

31). Risk of progression to HGD or EAC was higher in patients with persistent LGD (5/18 patients, 28% vs. 0/24, 0%; OR 92, 95% CI 1.02-1248 p: 0.007) (Figure 1) and those patients with older age (> 65 years old) (4/15 patients, 27% vs. 1/27 4%; OR 9, 95% CI 1.01-250; p: 0.03). **Conclusions:** Older age and persistence of LGD in several endoscopic examinations identifies patients who are at higher risk for developing HGD or EAC. These findings support shortening the surveillance intervals of patients with persistent LGD. (no table selected).



UTILITY OF TELEPHONE MONITORING STRATEGY IN 48234 PATIENTS POST GASTROINTESTINAL ENDOSCOPIES

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Abstract Body: Introduction: Gastrointestinal endoscopies may have adverse effects that motivate consultations or admissions in the emergency generating discomfort in patients and elevating costs. Phone calls post studies were implemented to address patients' concerns and identify potential complications. **Objectives:** 1. To register signs and/or symptoms post procedures. 2. To describe patients' concerns and satisfaction post procedures. **Materials and Methods:** We included consecutive adults who were contacted by telephone after the procedures. The study was conducted in an outpatient endoscopy center in Buenos Aires, Argentina, between January, 2012 and August, 2014. Design: retrospective, comparative, observational and cross sectional. **Procedures:** The endoscopies were performed under sedation with propofol with Olympus equipment (air was used to insufflate). At discharge of the endoscopic center, patients received written instructions (medications, activity, diet and alarm advices). Within 12 hours, patients were telephonically contacted by an endoscopy assistant who collected concerns and asked 7 questions related to: pain (abdominal, headache and / or throat), bloating, drowsiness, bleeding, fever, state of the venopuncture site and overall satisfaction. Responses were measured using a Likert scale (higher score in case of more severe symptoms and more satisfaction). **Ethics:** signed informed consent was obtained from all patients before the procedure. **Statistical analysis:** VCCSTAT 2.0. 95%; Chi square. **Results:** 48,234 patients (female, 65%) were contacted; mean age 48 (18-85) years. Procedures consisted of double GI endoscopies (upper endoscopy and colonoscopy) (n=15,466, 32%), colonoscopies (n=17,104, 35.5%) and upper endoscopies (n=15,664, 32.5%). Procedures were diagnostic and therapeutic in 78% (n=37,518) and 22% (n=10,716) of cases, respectively. Symptoms and/or signs collected by directed questioning were reported by 6,423 (13%; 95%CI, 13-13.6) patients; they included bloating (39.5%), abdominal pain (19%), somnolence (18%), sore throat (13%), headache (7%), inflammation in venous-punctu-

re site (2.5%), fever and hematochezia (1% <, both). Globally, they were more frequent after therapeutic as compared with diagnostic procedures (16%[1,687/10,716]vs. 13% [4,736/37,518]; p <0.001); 1% (47/4556) required to contact the endoscopist. Additional concerns were referred by 7.4% (95%CI 7-7.6; n: 3553) of patients (Table). The satisfaction degree was very good and/or excellent in 97% (n=34,697) of patients. **Conclusions:** Telephone monitoring post gastrointestinal endoscopies was useful to record symptoms and/or signs, concerns and patients' satisfaction post procedures. This strategy offers patients comfort and confidence and help the endoscopists to collect the information that should be emphasized to patients' before endoscopy centre discharge.

Patients' concerns not indexed in the standardized check list

Patients' concerns	N (%)	95%CI
Other post-procedure symptoms	1,523 (42.5)	41-44
Symptomatic medication	942 (26)	25-27
Biopsy result (date to withdraw)	377 (10.5)	10-11.5
Diet (time to restart and food quality)	281(8)	7-9
Greetings and gratitudes	236 (7)	6-7.5
Appointments and reports	201(6)	5-6.5
Certificates	16 (0.4)	0.3-0.7
Total	3,576 (100)	

CAN WE IDENTIFY CYTOLOGICAL DYSPLASIA IN SESSILE SERRATED ADENOMAS? A PROSPECTIVE STUDY USING CONVENTIONAL COLONOSCOPY

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Abstract Body: Background: Rapid transformation of sessile serrated adenomas (SSAs) with dysplasia could be explaining interval tumor development in the right side of the colon after colonoscopy. However few studies have investigated the endoscopic appearance of SSAs with cytological dysplasia. **Aim:** To identify endoscopic features of SSAs with high grade cytological dysplasia using conventional white light colonoscopy without magnification. **Methods:** Patients undergoing screening or surveillance colonoscopies from January 2011 to January 2014, in whom colonic polyps were found, were prospectively included in our study. Polyp morphology (Paris classification), laterally spreading tumors (LST), location, pit pattern (Kudo classification), and other previously reported features of SSAs were evaluated. Histopathological categorization of all colorectal polyps, according to the WHO classification, was performed independently by gastrointestinal experienced pathologists. Univariate analysis was carried out to identify endoscopic features associated with the presence of high grade cytological dysplasia. A p value <0.05 was considered statistically significant. **Results:** A total of 500 patients (mean age 62 years, 53% men) were included, and 817 polyps were evaluated (1.6 polyps per patient). We found

a total of 72 SSAs (72/817, 8 %); 52 (72%) SSAs without dysplasia or low grade cytological dysplasia and 20 (28%) SSAs contain high grade cytological dysplasia. Compared with SSAs without dysplasia or low grade cytological dysplasia, SSAs with high grade cytological dysplasia were more frequently: bigger, > 10 mm (46% vs. 90 %, p: 0.001), flat (69% vs. 95 %, p: 0.03), LST (5.7% vs. 75%, p: 0.000) and presented a type III L Kudo pit pattern (3.8% vs. 40%, p: 0.000). No significant differences were observed regarding: older age > 65 years (31% vs. 55%, p: 0.06), female gender (58% vs. 65%, p: 0.6), mucus cap over the surface (73% vs. 55%, p: 0.1), serrated polyposis syndrome (15% vs. 25%, p: 0.5), more than 1 SSA in the same colonoscopy (42% vs. 40%, p: 0.8). Regarding polyp endoscopic resection technique: Endoscopic mucosal resection (EMR) was more frequently performed by endoscopists in SSAs with high grade dysplasia than in SSAs without dysplasia (95% vs 59% p: 0.004). **Conclusion:** We were able to identify specific features of SSAs during conventional colonoscopy which may help to identify high grade cytological dysplasia, and therefore to optimize the endoscopic approach of these lesions and to alert the pathologist to the likely presence of dysplasia.

REUSE OF MEDICAL DEVICES LABELED FOR SINGLE USE: ACCEPTING AND OVERCOMING A NEED AS A COST-SAVING MEASURE IN AN ERCP UNIT

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Introduction: Reuse is defined as the use of a medical device (MD) more times than specified by its manufacturer on its label. Reuse is always preceded by reprocessing (disinfection, sterilization and repacking). In Argentina, there are laws that support the reprocessing of MDs if they are guaranteed to be non-toxic, sterile (free from germs and pyrogenic materials), and have the same functionality than the original product, even though their manufacturers labeled them for single use only. **Aims:** 1) To compare the total costs generated by the reuse of MDs with the potential total costs of having to use a new MD for each endoscopic retrograde cholangiopancreatography (ERCP) performed in a 3 month period; 2) to analyze the reuse rate of each MD based on their functionality, and the complications related to reuse. **Materials and Methods:** All ERCPs performed during a 3 month period were prospectively analyzed in a public tertiary level hospital, where reuse of MDs is usual. The following MDs and their costs were evaluated: sphincterotomes, guidewires, extraction balloons, baskets, needle knives and biliary balloon dilators. The cost of each MD was asked to its manufacturers. The cost of reprocessing each MD was obtained from the Reprocessing Department. The functionality of a MD was addressed as its capability of allowing performing the procedure without technical difficulties. Each new MD was reused until it was considered

not suitable for working by a neutral observer. A cost-benefit analysis was carried out comparing our reuse strategy against the single use strategy proposed by manufacturers. A p value lower than 0.05 was considered statistically significant. **Results:** 144 ERCPs were performed in this period: deep biliary cannulation was achieved in all procedures using sphincterotomes and guidewires (precut with needle knife was needed in 24 patients due to difficult cannulation); 20 patients required sphincteroplasty using biliary balloon dilators (in addition to sphincterotomy) due to giant choledocholithiasis; stones were removed using extraction balloons in 72 patients and baskets in 24 patients. Reusing of the MDs (see Table 1) allowed a real total cost in MDs of US\$10943 quarterly (mean cost per procedure US\$76). Following the single use strategy, the potential total costs in MDs would have been US\$126280 quarterly (mean cost per procedure US\$877). Comparing the reuse strategy against the single use strategy, a significant decrease in the total costs was observed (p <0.001), meaning a 90% reduction of the total cost. No complications related to the reuse of MDs were noted. **Conclusions:** In our cohort, the reuse of MDs in the ERCP Unit significantly reduced costs without affecting therapeutic goals neither increasing complications. The reuse strategy appeared to be a cost-saving measure valid to reduce costs in developing countries or when budgets have restrictions.

Table 1. Medical devices used in the ERCP Unit during this 3 month period and their costs.

Medical devices (MD)	Number of new MD used	Mean MD cost per unit (US\$)	Mean reuse per MD	Real total costs by reusing the MDs (US\$)	Potential total costs by single use strategy (US\$)	Real savings due to reuse (US\$)	p Value (Mann-Whitney tests)
Sphincterotomes	9	314,4	16	2830	45274	42444	< 0.001
Guidewires	12	266,7	12	3200	38405	35205	< 0.001
Baskets	3	409,7	8	1229	9833	8604	< 0.001
Extraction balloons	4	238	18	952	17136	16184	< 0.001
Biliary balloon dilators	5	428,8	4	2144	8576	6432	< 0.001
Needle Knives	2	294	12	588	7056	6468	< 0.001