DDW2012 Digestive Disease Week

Publicamos los resúmenes de los trabajos realizados en la Argentina y aceptados para su presentación en la *Digestive Disease Week 2012* realizada en San Diego (EE.UU.) del 19 al 22 de mayo.

GASTROENTEROLOGÍA

IRRITABLE BOWEL SYNDROME: SEVERITY OF SYMPTOMS IS NOT DEPENDENT ON WHETHER HYDROGEN EXCRETION OCCURS IN THE SMALL INTESTINE OR COLON

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Introduction. Irritable bowel syndrome (IBS) is a disorder which may exhibit variability in the severity of symptoms. We have previously shown that IBS symptom severity is significantly associated with the accumulated H2 excretion as measured by area under the curve (AUC) during the lactulose breath test (LBT). However, visual observation of the hydrogen x time curves shows two types of patterns: one with an early (0-80 minutes) H_2 increase followed by a late H_2 decrease ("descending curve") compatible with small intestinal bacterial overgrowth (SIBO) and another with early low H_2 values followed by a late H_2 increase (90-180 minutes) compatible with fermentation in the colon ("ascending curve"). **Objective.** To determine if the descending and ascending LBT curves are associated with symptom severity in IBS patients. **Methods.** We conducted a prospective study on subjects with a diagnosis of IBS according to the Rome III Criteria. In addition, a validated questionnaire was administered to determine the severity of symptoms (IBS-SSS). We included two groups of age, sex, and AUC matched IBS subjects with: 1) a LBT showing elevated excretion of H_2 at baseline (>15 ppm) and a H_2 x time descending curve and 2) a normal H_2 at baseline and an ascending curve. The latter group was enrolled in a 2:1 ratio to the first group. We compared the total IBS-SSS scores and individual item scores. The Mann Whitney test was used for non-parametric numerical comparisons and the Fisher test for categorical variables. Values of $p<0.05$ were considered significant. **Results.** 30 IBS patients were included with descending LBT curves and 60 patients with ascending curves. Because of the pair-matching, there were no significant differences in age, sex, and AUC values in the two groups. The comparison of IBS-SSS results are shown in Table 1. No significant differences were found in the values of symptom severity globally and for individual symptoms. **Conclusion.** No significant differences were found in the profile and severity of symptoms between descending versus ascending LBT curves. Therefore, while AUC has been shown to correlate with IBS severity, the site of the intestine generating H_2 does not, suggesting that the association of H2 excretion and symptom severity is not site specific.

RISK OF ALEXITHYMIA IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE, A PROSPECTIVE CASE-CONTROL STUDY IN ARGENTINA

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Introduction. Diseases can be determined by psychological, social and cultural factors. The etiology of inflammatory bowel disease(IBD) has not been well established yet. Alexithymia is a particular cognitive and affective style, characterized by difficulties in identifying and verbally expressing emotions. It is considered to be a risk factor for the development and maintenance of several medical disorders. Aims. To assess the presence of alexithymia among patients with IBD who attended the Gastroenterology Unit in a community hospital, and to compared it with the presence of alexithymia among healthy controls. **Material and Methods.** Patients with IBD (ulcerative colitis (UC) and Crohn's disease (CD)) who consulted the Gastroenterology Unit from May to September 2011 were prospectively included in a case-control study. Patients with IBD were regarded as "cases", while healthy subjects selected from outside the hospital and without chronic diseases were included as "controls". Most common functional gastrointestinal disorders were ruled out amongst controls using a questionnaire based on the Rome III criteria. Alexithymia was defined as a specific disturbance in psychic functioning characterized by difficulties in the capacity to verbalize affect. The level of alexithymia was determined using the Toronto Alexithymia Scale(TAS-20), adapted and validated in Spanish language for our culture, through a self-administered questionnaire that assessed 3 concepts: 1) difficulty identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal, 2) difficulty describing one's feelings to others, and 3) externally oriented thinking. The diagnosis of alexithymia was defined by a score ≥61 on the TAS-20. The risk (odds ratio(OR) and their respective 95% confidence intervals(CI)) of having alexithymia in patients with IBD was calculated. **Results.** We analyzed 121 subjects: 60 cases and 61 controls. Among cases, 62% had UC and 38% CD; media age was 41 years (SD±13, range 17-85), 52% were male, 35% were single and 62% married; and 60% had completed tertiary or university education. Among controls, mean age was 35 years (SD±13, range 19-81), 25% were male, 61% were single and 34% married; and 66% had completed a tertiary or university level. The mean score of alexithymia was 46±14 in the cases and 39±11 in controls($P < 0.01$). Twenty three percent (95% CI 13-36) of cases and 5% (95% CI 1-13) of controls had alexithymia ($P < 0.01$). Patients with IBD had higher risk of alexithymia compared to healthy controls: OR 5.88 (95% CI 1.45-27). In the TAS-20, the main differences between the cases and controls were found in the items assessing "difficulty identifying feelings"($P < 0.01$) and "difficulty describing feelings to others"($P = 0.04$). **Conclusion.** Adult patients with IBD had almost 6 more chances to have alexithymia compared to healthy adults.

EPIDEMIOLOGY AND CLINICAL CHARACTERISTICS OF CLOSTRIDIUM DIFFICILE INFECTION BETWEEN OUTPATIENTS AND INPATIENTS

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Introduction. The epidemiology of Clostridium difficile (CD) infection has changed over the last decade, originally observing an increase on its incidence, treatment resistance and number of relapses in countries in the northern hemisphere. Aim: To compare clinical, epidemiological characteristics and number of relapses of CD infection acquired as an outpatient (OP) with those acquired as an inpatient (IP) in a southamerican hospital. **Methods.** We carried out a retrospective cohort study by reviewing electronic clinical records of patients with diagnosis of CD infection confirmed by the presence of toxin in stool through enzyme immunoassay or cytotoxicity assay, between March 2003 and December 2010, in a University Hospital. We defined IP as infections in inpatients or with previous hospital admission over the last two months. The rest of patients were classified as OP. The annual ocurrence of cases, number of relapses, associated risk factors and colonoscopy findings were evaluated. **Results.** We included 136 patients with symptoms and diagnosis of CD infection, 51 OP and 85 IP. The mean age was 61.8 (IR28) in OP and 62.6 (IR24) in IP. The male/female ratio was 0.9. The mean follow-up was 66 months (1-96). The presence of one or more risk factors (oncological disease, severe disease, gastrointestinal surgery, chemotherapy, enteral feeding, immunosuppression therapy) was 49% (25/51) in OP and 86% (73/85) in IP, p< 0.0001. Antibiotic therapy in the 6 months prior infection was 80% (41/51) in OP and 93% (79/85) in IP, p< 0.028. Colonoscopy showed pathological findings (pseudomembranous colitis, inespecific colitis) in 50% (6/12) in OP and 91% (10/11) in IP, p< 0.033. The most common symptoms were acute diarrhea and abdominal pain in both groups. The number of relapses in the OP group was 19% (10/51) and 21% (18/85) in the IP group. We observed an increase in the number of cases in both groups and also in the number of relapses in the IP group over the last 4 years (OP: 2003-2006: 5 cases and 1 relapse; OP 2007-2010: 46 cases and 9 relapses / IP: 2003-2006: 19 cases and 0 relapse; IP: 2007-2010: 66 cases and 18 relapses). Conclusions. In our study, we observed a significant difference in the presence of risk factors between both groups. Coincidently with the bibliography, we observed an important increase in the number of cases and relapses over the last years. Colonoscopy seems to be a more useful diagnostic tool in IP.

MAST CELLS IN THE GASTRIC ANTRUM, ITS RELATION WITH FUNCTIONAL DYSPEPSIA. A MULTICENTER STUDY IN A SOUTH-AMERICAN COUNTRY

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Introduction. Mast cells might be involved in the pathogenesis of FD, but is still unclear how to evaluate their presence in the gastric mucosa, and their association with FD and H.pylori infection. **Aim.** To assess whether mast cell numbers were increased in gastric mucosa (antrum) of patients with FD subtype postprandial distress, based on Rome III criteria, with and without HP infection. **Material and methods.** In this observational multicenter study, consecutively we enrolled 53 patients, 20 (38%) were male, mean age 52 years, who underwent an upper endoscopy. We compared with control group (n=56). For mast cells count, biopsy samples were taken from the antrum and they were detected by Giemsa stain, and HP status was defined as a positive urease test or histologic finding. Two blinded independent pathologists assessed the mast cells number, if there was disagreement on the mast cells count, and if the difference of mast cells number were ≥4, a third pathologist was called to define the number of them. Statistical analysis: We used x2 test to compare proportions, and the Mann-Whitney test to compare numerical variables in two groups. We calculated odds ratios (OR) using logistic regression. In all cases we used a significance level of 0.05. Results:

Table 1

	Case (n=53)	Control (n=56)	P
Age	52.09 ± 11	46.17±11	0,009
Sex (male)	20 (37.74%)	25 (44.64%)	0,46
H. pylori +	30 (56.60%)	32 (57.14%)	0,95
Mast cells number X 10 (median and range)	3 (1-40)	3 (1-9)	0,43
Mast cells number >6 x10	10 (18,87%)	4 (7,14%)	0,06

14 cases with mast cells >6 and a random samples of controls with mast cells ≤ 7 were taken for the case control ratio was approximately 1:4

Table 2

	Mast cells group>6 (n=14)	Mast cells group<7 (n=56)	OR (IC 95%)	P
Age <45	8 (57.14%)	13 (23.21%)	4.41 (1.29-15.04)	0.01
Dyspepsia	10 (71.43%)	23 (41.07%)	3.59 (1.01-12.85)	0.05
H. pylori status	11 (78.57%)	31 (55.36%)	2.96 (0.74-11.76)	0.12
Sex male	7 (50%)	25 (44.64%)	1.24 (0.38-4.01)	0.71

Multivariate model of Forward Stepwise Multiple Logistic Regression was used to identify better predictors of mast cells> 6 between the variables: age<45, sex male, H. pylori status and dyspepsia symptoms. This model included the age (OR=8.55; P=0.005) and dyspepsia (OR=7.19; p=0,013). **Conclusion.** According to our findings, the increase in the number of mast cells in the gastric antrum seems to be more related to age, to functional dyspepsia than H. pylori infection. However furher studies with a higher number of cases are necessary to confirm our findings.

PREDICTIVE FACTORS OF COLECTOMY IN SEVERE CORTICOSTEROID (CS) REFRACTORY ULCERATIVE COLITIS (UC) PATIENTS TREATED WITH INFLIXIMAB (IFX)

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Background. Rescue therapy with IFX had been reported as an effective option in severely active CS-refractory UC pts. However, despite the IFX treatment, a proportion of these pts. will need surgery. Predictors of colectomy in severe UC treated with IFX have been scarcely investigated. **Aim.** To study predictive factors of colectomy in UC patients treated with IFX as rescue therapy. **Material and methods.** A cohort of severe UC pts resistant to 1 wk of IV CS treated with IFX as an alternative to colectomy in two Argentine centers (Buenos Aires and Mendoza) from Jan 2007 to Dec 2010. Predictors of colectomy were analysed by Cox proportional hazards regression. To identify predictive factors at baseline, we designed a Cox regression model including significant variables ($P < 0.05$) by univariate analysis (log rank test). Cut-off for continues variables were selected by ROC analysis, as binary categorical variables. **Results.** We included 70 pts. (M 32, F 38), Extensive UC (N47), Left-sided (N23), mean age: 35.5 ±1.8 yrs (mean, SEM), Mean UC duration to IFX: 4.5±0.5 yrs. Truelove and Witts were used for inclusson criteria and Mayo score (DAI) for response (Baseline (mean ±SEM: 9.8 ± 0.2) Treatment modalities: 1) IFX induction (± a 4th infusion 8 wks later) plus long term 6-MP (IFX bridge: 79%) in thiopurine naive pts and non-naive who lost response. 2) scheduled (11%) in 6-MP primary refractory and intolerant pts 3) IFX episodic (non-availability/non-adherence: 10%). At mean follow-up 19.4±1.7 mo. 22 pts had required colectomy. Surgery due to IFX primary nonresponse (4 to 12 wks): 16%. Cumulative probabilities of colectomy at 6, 12, 18 and 24 mo. were: 17%, 26%, 30%, 35%. Gender, age at IFX (cut-off 40), UC extent, 6-MP naive/non naive, fever (≥38°C), Pulse rate ≥90, DAI scores (cutt-off 9), Hb (cutt-off 9.4mg/dL), Hcte (34.7%), serum albumin (Cutt-of 3 g/L), disease duration to IFX. Independent predictors were: Mayo score (HR = 3.85, 95 % CI 1.43 to 10.41, P = 0.008), Age at IFX (HR = 3.15, 95 % CI 1.37 to 7.26, p=0.007), Serum albumin (HR = 3.15, 95 % CI 1.15 to 8.62, P = 0.0026). Patients achieving complete healing (Mayo subscore 0 or 1) in at least one colonoscopy were less likely to undergo colectomy during the follow up HR = 0,1027 (95% CI 0.034 to 0.31, P < 0.0001) however, fluctuations were observed in >2/3 of all pts. We did not detect predictors between treatment modalities (size samples may be small). Percent of pts who required IFX reinduction and scheduled: 14%. **Conclusion.** Predictors of colectomy in severe UC treated with IFX at patient admission were high scores of disease activity, patients aged > 40 yrs and low values of serum albumin. Unlike to that reported for CD, no difference according disease duration was observed. Endoscopic healing in any time was predictor for lower requirement of colectomy.

SACIETY DRINK TEST: A PILOT STUDY TO DIFFERENTIATE FUNCTIONAL DYSPEPSIA SUBTYPES

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Introduction. Functional dyspepsia (FD) is a disorder that accounts 2-3% and 40% of general practitioners and gastroenterologists consultation respectively. According to Rome III criteria, FD has a high prevalence in western population and it is classified in two different syndromes: postprandial distress syndrome (PDS) and epigastric pain syndrome (EPS). Disturbed gastric emptying, increased gastric sensitivity, impaired gastric accommodation have been proposed as most important mechanisms responsible for the symptoms. Drink tests (DT) were originally developed as noninvasive methods to assess gastric accommodation and demonstrated differences between health and dyspepsia. The utility of this procedure to discriminate both clinical subtypes of dyspepsia has not been investigated. Aims. 1. To investigate the utility of DT to differentiate both subtypes of FD. 2. To estimate Saciety Test (ST) in both subtypes. **Materials and methods.** This study was prospective and cross sectional. All adult patients with FD according to Rome III criteria (G1) were included consecutively between august and november, 2011.Healthy subjects (G2) participated as controls. Both groups completed DT that consisted of ingestion of liquid meal with a caloric content of 1.5 kcal/ml (Nutridrink, Nutricia Bornem, Belgium). Subjects were requested to maintain intake at a specific filling rate and to score satiety at 5-min intervals using a Likert scale. Participants were instructed to cease intake when they reported unbearable satiety, defined as the maximal score of 5 points. The total volume and respective calories consumed were recorded and registered as "Saciety test" (ST) **Results.** 10 healthy control subjects and 13 patients were finally included. Demographics and DT are summarized in Table 1. ST were lower in FD patients compared with controls ($P < 0.005$). DT volume and calories sensitivity and specificity were 80 and 69%, respectively (under the ROC curve (AUC) 0,785; $P < 0.005$). According to Rome III, FD was categorized as follows: PDS: 8 patients, EPS: 4 patients and mixed 1 patient. Concordance rate between PDS, EPS with ST was 62% y 31% respectively. ST in FD subtypes are shown in table 2. Conclusions. Our results show that DT is a useful tool to discriminate health from disease. Its utility to differenciate FD subtypes needs to be elucidated enlarging the sample size. However, PDS patients seem to tolerate lower volumes. This finding could have an impact in dietary recommendations as frequent and low volume intakes would be more beneficial in PDS patients.

Table 1

		Healthy subjects (n:10)	FD patients (n:13)
Age (years)		30.2 (27-37)	36.5 (21-60)
Sex n (female)		6	10
BMI kg/m2 (SEM)		25.3 ± 1.2	23.9 ± 1.3
Saciety test	Volume (ml) SEM	350.0 ± 39	216.1 ± 40
	Kcal SEM	525.7 ± 59	324.0 ± 60

Table 2

Subtype dyspepsia (n:13)	Patients (n:13)	Saciety test (median-range) Volume (ml)	Kcalories
PDS	8	175 (60-540)	262 (90-810)
EDS	4	277 (150-450)	416 (225-675)
Mixed	1	150	225

ACCURACY OF THE ANTIBODIES AGAINST SYNTHETIC DEAMINATED GLIADIN PEPTIDES FOR THE DIAGNOSIS OF CELIAC DISEASE IN A GENERAL COMMUNITY HOSPITAL IN ARGENTINA: ARE SO SENSITIVE FOR PATIENTS WITH LOW PRETEST PROBABILITY?

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Introduction. Serological tests have shown high diagnostic accuracy for celiac disease (CD) in selected populations. Although intestinal biopsy is still considered the gold standard for diagnosis of CD, the antibodies against synthetic deaminated gliadin peptides (DGPs) are being used as screening tests. However, their usefulness remains controversial in our community. **Aim.** To determine the diagnostic accuracy of both DPGs antibodies isotypes (IgA and IgG) for the diagnosis of celiac disease in a population mostly with low pretest probability. **Materials and methods.** During the period 2008-2010, all patients with suspicious of CD attending a general community hospital were analyzed by a retrospective study. Using the Laboratory, Pathology and Endoscopy electronic databases, we identified patients that had performed an upper gastrointestinal endoscopy with duodenal biopsies and, at the same time, that had done a DPG test for CD screening. Patients with previous diagnosis of CD were excluded. The diagnostic accuracy of both DPGs antibodies was evaluated. The DPG tests were done using QUANTA Lite Gliadin IgG II ELISA (NOVA) and QUANTA Lite Gliadin IgA II ELISA (NOVA) kits. The cut-off was 0-19.9 UI/ml for the IgA and 0-19.9 UI/ml for the IgG DPG isotypes. The gold standard for the diagnosis of CD was defined according to AGA guidelines (serology, histology, and follow-up). We calculated the sensibility and the specificity of the DPGs assays as a screening tool for CD, considering confidence intervals of 95% (CI). The area under the curve (AUC) and their likelihood ratios were also calculated for both isotypes. **Results.** We identified 180 patients who had performed a DPG assay and had done an upper gastrointestinal endoscopy with duodenal biopsies for CD screening: 170/180 had DPG IgA and 171/180 had DPG IgG assays. DPG isotype IgA was positive in 45/170 (26%) patients and IgG in 45/171 (26%) patients. The diagnosis of CD was confirmed in 50/180 (28%) patients: 77% (37/48) of these patients had an IgA DPG positive assay and 76% (35/46) had an IgG DPG positive assay. DPG IgA isotype had a sensibility of 77% (CI 67-84), specificity of 93% (CI 90-96); the positive likelihood ratio (LR) was 12 (CI 6.5-21) and the negative LR was 0.24 (CI 0.17-0.36). The AUC was 0.86 (CI 0.79-0.94). DPG IgG isotype had a sensibility of 76% (CI 66-83), specificity of 92% (CI 88-95); the positive LR was 9.5 (CI 5.6-16) and the negative LR was 0.26 (CI 0.17-0.39). The AUC was 0.86 (CI 0.78-0.93). **Conclusion.** In our population mostly with low pretest probability, these new noninvasive serology tests were no highly accurate markers for the celiac disease screening, as have been previously shown in most studies.

RELATIONSHIP BETWEEN COLORECTAL NEOPLASIA AND ANGIOTENSIN RECEPTOR BLOCKERS AND ANGIOTENSIN-CONVERTING ENZIME INHIBITOR

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Introduction. Angiotensin-receptor blockers (ARBs) and angiotensin-converting enzyme inhibitors (ACEI) are widely used drugs. The renin-angiotensin system has been related with angiogenesis and tumor progression. The association of these drugs with colorectal neoplasia has not been described. **Aim.** To determine the risk of colorectal neoplasia in patients under ARBs or ACEI treatment.

Materials and methods. A transversal cohort study was conducted in a private community hospital in Argentina from August 2010 to November 2011. Patients scheduled for an outpatient colonoscopy during this period were included and asked to complete a survey about behavioral factors (diet, exercise and smoking), disease history (diabetes, obesity, dyslipidemia and hypertension), medications (antilipemic, antihypertensive and non-steroidal anti-inflammatory drugs, (NSAID)) and personal and family history of colorectal neoplasia. In one group the patients were under ARBs or ACEI treatment, type and treatment duration was consigned. In the other group patients were not under these treatment. We calculated the risk of colorectal adenomas, advanced neoplastic lesions (ANL) (size ≥ 1 cm, high grade of dysplasia and/or ≥ 75% of villous component) and colorectal cancer (CRC). Risk was expressed in OR and its 95% confidence intervals (CI). **Results.** 500 patients were analyzed, 127 (25%) were under ARBs and ACEI treatment. There were no significant differences in patients characteristics between both groups regarding: familiar history of cancer, indication for colonoscopy and tobacco use (P > 0.05). Significant differences were observed respect to: average age (64 vs. 56 years (P < 0.001)), diabetes, 16% vs. 5% (P< 0.01), hypertension, 92% vs. 14% (P < 0.01), dyslipidemia, 50% vs. 36% (P = 0,003), body mass index, 28 vs. 25 (P = 0.017) and used of chronic NSAID, 37% vs. 20% (P > 0,01). There was a higher risk of CRC and ANL in patients under ARBs treatment (OR 5.60 (95% CI 1.14-27.46) and OR 3.08 (95% CI 1.14-8.16), respectively). There was also a higher risk of CRC in patients taking ACEI (OR 6.85 (95% CI 1.33-33.79)). Patients taking ARBs for longer than 10 years had higher risk of adenomas OR 3.96 (95% CI 1.01-15.22), meanwhile those patients under ACEI treatment longer than 10 years had higher risk of CRC and ANL (OR 16.81 (95% CI 1.89-126.90), OR 7.18 (95% CI 1.3-32.87), respectively). In the multivariate analysis male gender (OR 5.07 (95% CI 1.75-14.65)), age > 65 years (OR 2.91 (95% CI 1.23-6.88)), NSAID (OR 0.29 (95% CI 0.09-0.92)), also ARBs and ACEI treatment (OR 17.91 (95% CI 2.02-154.46)), OR 7.79 (95% CI 1.50-40.57), respectively) were independent predictors for ANL. The combinate treatment with ARBs and ACEI was independent predictor for CRC (OR 110 (95% CI 5.63-2,176)). **Conclusion.** In this cohort we found a higher risk of CCR and ANL among patients under ARBs and ACEI treatment.

"TO SPEAK OR NOT TO SPEAK: ALEXITHYMIA IN PATIENTS WITH GASTROINTESTINAL DISORDERS, THAT IS THE QUESTION". RESULTS OF A PROSPECTIVE CASE-CONTROL STUDY IN ARGENTINA

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Introduction. Some gastrointestinal disorders have an important link to psychosocial factors, especially those with etiologies that are yet not well understood. Alexithymia is a relatively new term used to identify a personality trait about a particular cognitive and affective style, characterized by difficulties in identifying and verbally expressing emotions. It is considered to be a risk factor for the development or maintenance of several medical disorders, as well as a reliable predictor of treatment outcomes. Aims. To assess the presence of alexithymia among patients with functional gastrointestinal disorders (FGIDs), inflammatory bowel disease (IBD), and celiac disease (CD) who attended the Gastroenterology Unit (GU) in a community hospital in Argentina, and to compare it with the presence of alexithymia among healthy controls. **Material and Methods.** Adults patients who consulted the GU from September 2010 to September 2011 were prospectively analyzed regarding their diseases: FGIDs group(irritable bowel syndrome (IBS) or functional dyspepsia (FD)), IBD group, CD group, and healthy subjects (control group). Healthy subjects without any clearly evident chronic disease were recruited outside the hospital. IBS and FD were ruled out amongst non-FGIDs group by using a questionnaire based on the Rome III criteria. The level of alexithymia was determined using the Toronto Alexithymia Scale (TAS-20), composed of 20 items rated on a 5-point Likert scale, adapted and validated in Spanish language, through a self-administered questionnaire that assessed 3 concepts: 1) difficulty identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal, 2) difficulty describing one's feelings to others, and 3) externally oriented thinking. Alexithymia diagnosis was defined by a score ≥61 on the TAS-20. Comparisons between groups were carried out using ANOVA, Tukey multiple comparisons test, Dunnett t-test and Chi-square. The risk (OR and their respective 95% CI) of having alexithymia in each group of patients against controls was calculated. **Results.** We analyzed 199 subjects (Table). TAS-20 scores were significantly higher in the FGIDs and IBD groups in comparison with CD and control groups. Alexithymia prevalence was significantly higher in the FGIDs and IBD groups. The risk of having alexithymia compared to the control group was: FGIDs group OR 4.17 (95% CI 1.17-14); IBD group OR 5.88 (95% CI 1.45-27); and CD group OR 2.54(95% CI 0.2-21). Items referred to concept 1) represented the main cause explaining the differences observed in the TAS-20 amongst groups. **Conclusion.** Adult patients with FGIDs and IBD were 4 and 6 times more likely to have alexithymia, respectively, compared to healthy controls. Identifying patients with alexithymia might be important to attempt to improve these patients' skills in order to achieve better treatment outcomes.

Table 1

	FGIDs group (n62)	IBD group (n60)	Controls (n16)	CD group (n61)	P value*
Age years (mean,SD)	43±16†	41±13	42±10	34±13	0.005
Women (%,CI)	66%(53-77)	48%(35-61)	94%(70-99)	75%(62-85)	0.001
TAS-20 mean(SD)	46±14†	47±14†	40±15	40±11	0.013
TAS-20 concept 1(mean,SD)	17±7†	16±7†	14±8	12±5	<0.001
TAS-20 concept 2(mean,SD)	11±5	12±5	9±5	10±4	0.105
TAS-20 concept 3(mean,SD)	17±6	18±5	17±5	17±5	0.685
Patients w/alexithymia (%,CI)	19%(10-31)‡	23%(13-36)‡	12%(1-38)	5%(1-13)	0.032

SCREENING COLONOSCOPY IN ELDERLY PEOPLE: WHAT DO WE EXPECT

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Introduction. Colorectal cancer (CRC) is a major public health problem, being the second leading cause of cancer death in the U.S and in Argentina. It mainly affects the elderly. This group is growing and life expectancy too in developed countries and in major cities of Argentina. CRC screening by colonoscopy (CC) and removing adenomatous polyps shows to reduce mortality. Scientific societies recommend starting CRC screening at age 50 (average risk-AR), on the other hand, only some of them suggests ending screening at age 75 if they haven't begun screening yet. There are few reports on this issue in medical bibliography. Aims. To describe clinical features of AR population age ≥75 who underwent screening by CC and to describe endoscopic findings. **Materials and methods.** A descriptive cross-sectional study based on a secondary database was carried out in a third level university hospital from September 2004 to 2010. Consecutive adult outpatients age ≥ 75 who underwent their first CC by AR were included. We excluded those who had a previous CC, history of adenomatous polyps or CRC, inflammatory bowel disease, hereditary CRC syndromes or another indication for CC (bleeding, anemia, constipation, weight loss, positive FOBT). Quantitative variables were described as median and range and categorical variables as proportions. **Results.** During the research period 29,480 CC were performed, 5,834 in patient age ≥75. We included 122 patients who met all criteria, 76 (62.3%) women with a median age 78 (range 75-85). Fourteen percent had no comorbidities and 49% had only one, hypertension being the most frequent. Eighty-four percent of them were ASA II. None required hospitalization before or after the procedure. In 93.4% of patients the CC was complete. The inability to complete CC was due to inadequate colonic preparation in 4 patients, anatomic difficulties in 3 and 1 transient hemodynamic instability. In 74/122 patients (60.7%) polyps or flat lesions were found. Sixty-four percent (47/74) of the polyps were adenomas, 80% (38/47) were <1cm (23% with high grade dysplasia [HGD] or villous histology) and 20% (9/47) were >1cm, (6 with HGD or villous histology). No CRC was found. Adenoma detection rate was 38.5%. Advanced lesions, defined as >1 cm, HGD and/or villous component, were found in 14.7% of the whole population and in 38.2% of those with adenomas. **Conclusion.** We analyzed an elderly population which has not been previously studied, with very good clinical status and probably with a relatively long life expectancy. CC was performed without complications and we got more significant findings than those described for younger population in the medical bibliography. Although this study does not allow us to make a general recommendation our results could be considered when making an individual indication.

RISK OF ALEXITHYMIA IN PATIENTS WITH FUNCTIONAL GASTROINTESTINAL DISORDERS, A PROSPECTIVE CASE-CONTROL STUDY IN ARGENTINA

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Introduction. Diseases can be determined by psychological and sociocultural factors. Functional gastrointestinal disorders (FGIDs) are defined as chronic conditions where there is no demonstrable evidence of organ injury to explain the symptoms. Alexithymia is a particular cognitive and affective style, characterized by difficulties in identifying, regulating and verbally expressing emotions. The relationship between alexithymia and FGIDs is controversial, although it seems to exist. Aims. To determine the presence of alexithymia in patients with irritable bowel syndrome (IBS) or functional dyspepsia (FD) who consulted to the Gastroenterology Unit (GU)in a community hospital, and to compare it with the presence of alexithymia among healthy controls. **Material and methods.** Patients with FGIDs (IBS and FD, according to Rome III criteria) attending our GU from September to December 2010 were prospectively analyzed in a case-control study. Patients with FGIDs were regarded as "cases", while healthy subjects selected from the community and without chronic diseases were included as "controls". FGIDs were ruled out amongst controls using a questionnaire based on the Rome III criteria. A psychology student determined the level of alexithymia in patients and controls using the Toronto Alexithymia Scale (TAS-20), adapted and validated in Spanish language. The TAS-20 assessed 3 concepts: 1) difficulty identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal, 2) difficulty describing one's feelings to others, and 3) externally oriented thinking. The diagnosis of alexithymia was defined by a score ≥61 on the TAS-20 questionnaire. The risk, measured by odds ratio (OR) and their respective 95% confidence intervals (CI), of having alexithymia in patients with FGIDs was calculated. **Results.** We analyzed 123 subjects: 62 adult patients with FGID (cases) and 61 healthy adults from the general population (controls). Among cases, the mean age was 44 years (SD±16, range 20-78), 66% female, 47% single and 42% married, and 55% had completed tertiary or university education. Among controls, the mean age was 35 years (SD±13.25, range 19-81), 75% female, 61% single and 34% married, and 66% had a tertiary or university degree. The mean score of alexithymia was 46±13 in the cases and 39±11 in the controls(p=0.005). Alexithymia was diagnosed in 17.7% (95% CI 9-29) of the cases and 4.9% (95% CI 1-13) of the controls. Patients with FGIDs had higher risk of presenting alexithymia compared to healthy controls: OR 4.17(95% CI 1.17-14, P = 0.025). In the TAS-20, the main differences between the two groups were found in the item assessing "difficulty identifying feelings and distinguishing between feelings and the bodily sensations" (P < 0.001). **Conclusion.** Adult patients with FGIDs were 4 times more likely to present alexithymia compared to healthy controls.

EXPLORATORY, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED TRIAL ON THE EFFECTS OF ORALLY ADMINISTERED BIFIDOBACTERIUM INFANTIS IN UNTREATED CELIAC DISEASE

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Background. The probiotic bacteria Bifidobacterium, which has been shown to be deficient in the intestinal microbiome of CD patients, has demonstrated exert anti-inflammatory and immune-modulating properties in models of CD. **Objective.** We aim to explore the effect of Bifidobacterium infantis orally administered for 3 weeks on clinical features, intestinal permeability, serology and immunologic parameters in patients that have serological evidences of untreated CD. **Patients.** Fifty-four adult patients which were suspected to have CD were screened using serologic tools, which strongly suggest presence of the disorder (two concomitantly positives tests were required). Twenty-two patients (18 female) fulfilled inclusion criteria and were enrolled in the study. Biopsy at the end of the trial confirmed CD in all cases..**Methods.** This is a 3-week randomized, double blind, placebo controlled trial administrating two capsules of B. infantis NLS super strain (Natren Lifestart 2®) (2 x 109 colony-forming units per capsule) or placebo T.I.D. 15 minutes before meals. The study period lapsed between the serologic diagnosis and the duodenal biopsy while patients consumed a gluten containing diet (at least 12 gr of gluten/day), which was weekly assessed by expert dietitians. Clinical symptoms (GSRS questionnaire), lactulose/mannitol permeability, IgA tissue transglutaminase and DGP antibody serum concentrations and blood sampling for serum concentration and peripheral blood mononuclear cell (PBMC) release of cytokines were assessed at the beginning and at the end of the trial. **Results.** Twelve and ten patients were randomized to B. infantis or placebo, respectively. In contrast to patients in the placebo arm, patients randomized to B. infantis experienced a greater improvement of scores of GSRS (P = 0.0035 for indigestion, P = 0.0483 for constipation and P = 0.0586 for reflux syndromes). Compared with placebo, final/baseline IgA tTG and IgA DGP antibody concentration ratios had a decrease in the B. infantis arm (P = 0.055 for IgA tTG and P = 0.181 for IgA DGP). No significant differences were found in intestinal permeability. Compared with patients receiving the probiotic, the final/baseline IL-12p70 ratio in PBMC culture was increased in the placebo arm (P < 0.02). Final serum MIP-1β increased significantly (P < 0.04) in patients with probiotic but not in those with placebo. Overall, B. infantis did not cause any adverse reactions in participant patients. **Conclusion.** The present study is the first to explore the effect of B. infantis in untreated CD. Our results suggest a positive effect of the probiotic improving symptom scores. However, we were not able to detect significant changes in the immunologic profile and in intestinal permeability. The study also suggests that administration of B. infantis for CD seems to be safe. Further studies are needed.

"EXPERTS" ASSESS THE ACCURACY OF CELIAC DISEASE DIAGNOSIS PERFORMED IN THE COMMUNITY SETTING

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Background. The diagnosis of celiac disease (CD) relies on well-established histological and serological bases. In the past few years, the awareness of and interest in CD has grown sharply in the medical community. However, this increased alertness has not been accompanied by a parallel rise in expertise. Furthermore, a retrospective analysis has suggested diagnostic deficiencies in the community setting. Aims. We prospectively evaluated: 1- the degree of agreement of histological and serological diagnosis made in the community setting compared with an academic specialty center among subjects who were looking for a "second opinion"; 2- the degree of concordance in the histological analysis between two expert pathologists; and 3- to establish the impact of misdiagnosis on patients. **Methods.** Original biopsy slides and pathological reports used for CD diagnosis in the community setting and CD serology test results (IgA tissue transglutaminase antibodies) were considered for the analysis in 65 consecutive patients (39 originally diagnosed with CD and 26 cases ruled out for the disorder) who visited our academic institution for a "second opinion". One expert pathologist (AC) reviewed original histological slides blinded to the external diagnosis and other findings. A second expert pathologist reviewed slides also blinded to other assessments. Serological tests were repeated at the institution under similar clinical conditions. An expert team who was unaware of the external diagnosis made the final diagnosis on conventional criteria. **Results.** In 6 cases (9.2%), the quality of the original slides was considered not evaluable by the expert pathologist; therefore, diagnostic agreement was analyzed in 59 cases. We detected a divergent histological diagnosis between the community and academic pathologists in 12 of the 59 cases (20.3%) (Cohen´s kappa -κ-: 0.59). According to the expert pathologist assessment, 75% of misdiagnosed cases in the community resulted in overdiagnosis of CD. Agreement between expert pathologists was excellent (κ: 0.85). Fifty-four of 63 cases (85.7%) had congruent serology results in both settings (κ: 0.71). Globally, our "expert" team determined that 20% of cases consulting for a "second opinion" had a divergent diagnosis in respect to that of the community setting. Overdiagnosis of CD (34.5%) was greater than the proportion of cases underdiagnosed (13.0%). **Conclusion.** One every five cases consulting for a "second opinion" about diagnosis of CD in the community setting received a divergent diagnosis by experts. Furthermore, 27.7% of the histopathological diagnoses in the community practice were considered inadequate or misdiagnosed by an expert. Serology had greater concordance between the two settings. The degree of agreement between expert pathologists suggests they are important for reducing the impact of misdiagnosis.

HEPATOLOGÍA

PROINFLAMMATORY EFFECTS ON MONOCYTES AND KUPFFER CELLS IN PATIENTS WITH NONALCOHOLIC FATTY LIVER DISEASE (NAFLD)

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Background and aims. Non alcoholic fatty liver diseases (NAFLD) include obesity-related disorders characterized by dislipidemia and hyperleptinemia. Reactive oxygen species (ROS) and cytokines production by Kuppfer Cells (KC) and monocytes (Mo) associate with inflammation and liver damage. We aimed to evaluate the effects of linoleic acid (LA) and leptin (Lep) on ROS and tumor necrosis factor (TNF) production in Mo and KC and to evaluate the potential anti-inflammatory effect of the antioxidant curcumin (CUR). **Patients and methods.** peripheral blood mononuclear cells (PBMC) and liver biopsies were obtained from adults with NAFLD (NAFLD, n=11) or individuals with liver diseases non NAFLD (non-NAFLD; n=6). PBMC from 30 healthy controls (Co) were also included. To evaluate ROS production, PMBC or liver cell suspensions obtained by chemical and mechanical methods were incubated with dichlorofluorescein-diacetate [5 μM], stimulated with Lep[10nM] or LA [200μM] +/-Cur[30μM], stained with anti-CD14 and -CD11b mAbs and analyzed by Flow Cytometry. A stimulation index (SI) results from the mean fluorescence intensity (MFI) in stimulated / unstimulated cells. Intracellular TNFα was evaluated in Lep- stimulated [CD14+ TNFα+] PBMC and a fold of increase index (FI) was calculated. Kruskal-Wallis, Mann-Whitney with Bonferroni´s correction (pc), Wilcoxon matched pair test (pp) and Spearman's rank correlation were conveniently used. **Results.** LA induced a higher production of ROS in Mo from NAFLD (pc = 0.032 vs. Co) which diminished in the presence of CUR (pp = 0.030). LA similarly stimulated the oxidative burst of KC from patients with NAFLD (pp = 0.015) and non-NAFLD (pp = 0.04). Interestingly, ROS production induced by LA in both KC and Mo tend to correlate within NAFLD (r = 0.75, P = 0.06). Leptin induced a high production of TNFα by Mo in Co, NAFLD and non-NAFLD (pp = 0.031; 0.015 and 0.043, respectively) with a higher FI in NALFD (pc = 0.029 vs. Co). Though the SI in Lep-stimulated Mo did not differ between groups, NAFLD patients show a tendency to a positive correlation between ROS and TNFα production. Conclusions. A proinflammatory effect of LA and Lep on hepatic and peripheral myeloid cells is involved in NAFLD. A blockade of the proinflammatory response with curcumin might contribute to NAFLD treatment.

ENDOSCOPÍA

ENDOSCOPIC FEATURES OF SPORADIC DUODENAL POLYPS, CAN WE PREDICT ADENOMAS?

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Background. Sporadic duodenal polyps (SDP) are uncommon lesions and mostly discovered incidentally. Endoscopic identification of duodenal adenomas it's important due to their possible malignant transformation. **Aim.** To determine the prevalence and clinical characteristics of SDP in a community hospital in Argentina, and to identify independent predictors for adenomas. **Methods.** Endoscopic reports from patients undergoing upper gastrointestinal endoscopy (UGIE) from January 2003 to October 2011 were obtained from the electronic database of a private community hospital of Argentina. All patients with duodenal polyps and histological examination were retrospectively included for analysis. From the endoscopy report and clinical records the following data were collected: demographic information, clinical manifestation, endoscopic features of the polyps, other endoscopic finding (gastric polyps, neoplasia and helicobacter pylori status) and histology. Endoscopic approach, number of endoscopy to diagnose and follow-up were also analyzed. Prevalence of SDP and adenomas was calculated. Univariate analysis was performed, to identify characteristics associated with adenomas. Results were expressed in percentages and odds ratio (OR) with its corresponding 95% confidence intervals (CI). A P value < 0.05 was considered statically significant. **Results.** Of 7086 UGIE performed in this period, 137 patients had a total of 150 polyps. The prevalence of SDP was 2%. Patients were mostly males (56%), average age was 61.8 years old (27-90). Polyp's morphology was: sessile (77%), flat lesions (17%) and pedunculated (6%). Average size and polyp number was 4.5 mm and 1.76, respectively. 65% were localized in bulb. Most frequent endoscopic approach was initial polypectomy (55%). The most common purpose of UGIE was epigastric pain (35%), and heartburn (12%). Polyp final diagnose was: non-specific histological findings (34%), Brunner's gland hyperplasia (31%), adenomas (17%), hyperplasic polyp (11%) and gastric metaplasia (5%). Average number of UGIE for diagnosis was 1.16. The prevalence of adenomas was 0.33%; they were more frequently in second portion of duodenum with a mean size of 7 mm (2-30 mm). Only 36% had endoscopic surveillance and recurrence lesions were not found. Polyps size 1cm (P = 0.001, OR 5.68, 95% CI 1.60-20.18), second portion location (P = 0.000, OR 6.88, 95% CI 2.43-20.13) and flat polyp morphology (P = 0.000, OR 7.95, 95% CI 2.71-23.63) were significantly associated with adenoma. **Conclusion.** In the present study, the prevalence of SDP and adenomas was low, similar to that reported in the literature. We found a significant association between endoscopic features and adenomas that could optimize the initial endoscopic approach.

IS IT POSSIBLE TO IDENTIFY NORMAL GASTRIC MUCOSA, HELICOBACTER PYLORI INFECTED MUCOSA AND GASTRIC INTESTINAL METAPLASIA BY USING NARROW BAND IMAGING ENDOSCOPY WITHOUT MAGNIFICATION? A PROSPECTIVE STUDY

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Background. There is little information about the precision of NBI endoscopy without magnification to predict Hellcobacter pylori (Hp) status and the presence of intestinal metaplasia (IM) in gastric mucosa. **Aim.** To evaluate the precision of white light (WL) and NBI endoscopic mucosal patterns for the detection of Hp status and IM in the stomach. **Methods.** From July to September 2011 patients undergoing upper GI endoscopy were prospectively included. Data regarding gender, age, symptoms, use of antibiotics and PPI, previous Hp infection and eradication attempts, history of peptic ulcer, and personal and family history of gastric cancer were recorded. Endoscopies were performed using a GIF-H180 Olympus endoscope. In every study we systematically investigated with WL the presence of gastric bile content, and that of minute red spots in the corpus mucosa representing collecting venules. Later on, corpus mucosa was examined using NBI, and its appearance was classified into 3 types adapted from previous magnification studies: 1) regular round pit pattern with regularly arranged collecting venules, where a honeycomb-like subepithelial capillary network can be identified (associated with Hp negative status in other studies), 2) regular round pits with loss of collecting venules, and 3) irregular and enlarged pits without collecting venules (mostly associated to Hp infection). Presence of Hp was investigated in corpus and antrum biopsies with HE and Giemsa stains. NBI observation of slightly elevated and/or whitish patchy areas with a wrinkled or villous pattern, especially in antrum or angulus, were biopsied to investigate IM. Sensitivity (SE) and specificity (SP), and positive and negative likelihood ratios (PLR and NLR) with their 95% CI were calculated. **Results.** Seventy-two adult patients were included, 38 (53%) were women, 20 (28%) Hp positive by histology. The most frequent indications for endoscopy were epigastric pain and reflux symptoms. 19 patients (26%) were under PPI, 13 (18%) had previous Hp eradication attempts and 12 (17%) had bile reflux to the stomach. WL visualization of collecting venules showed a SE, SP, PLR and NLR of 85% (65-96), 83% (75-87), 4.9 (2.6-9.3) and 0.18 (0.05-0.4) respectively to predict Hp negative status. NBI visualization of type 1 pattern had a SE, SP, PLR and NLR of 83 (75-87), 85 (65-96), 5.5 (2.2-20) and 0.2 (0.13-0.38) to predict Hp negative status. NBI visualization of type 3 pattern had a SE, SP, PLR and NLR of 25 (12-25), 100 (95-100), 13,2 (1.6-299) and 0,76 (0,70-0.95) to predict Hp positive status. Conclusions. Visualization of venules with WL was equally effective as type 1 NBI pattern to predict Hp negative status. This can be a useful diagnostic tool in our low Hp prevalence population. On the other hand type 3 NBI pattern was an excellent tool to confirm infection. NBI helped in finding IM in aimed biopsies.

LYMPH NODE METASTASES AND POSTOPERATIVE RECURRENCE AFTER LAPAROSCOPIC RESECTION OF NEOPLASTIC COLONIC POLYPS: A PROSPECTIVE STUDY

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Introduction. Malignant histology and endoscopic resection failure of neoplastic colonic polyps are indications for surgical colonic resection. The prevalence of lymph node metastases, postoperative recurrence and rate of complications of the surgical procedure are not clearly established. **Aim.** To determine the prevalence of lymph node metastases and postoperative recurrence after laparoscopic resection of neoplastic colonic polyp, and to evaluate the mobidity of the surgical procedure. Material and **Methods.** From June 2003 to February 2011, patients undergoing laparoscopic resection for colonic polyp with in situ or invasive carcinoma were prospectively included. Demographic data, endoscopic features of the colonic polyps (morphology using Paris classification, size and location) and histology were consigned. All patients underwent colonoscopic surveillance. Carcinoembriogenic antigen (CEA), abdominal ultrasonography or CT-scan were performed during the follow-up according to the tumor staging. The primary outcome measured was the presence of lymph node metastases in the surgical specimen and postoperative local or distant recurrence. Secondary outcome was the procedure morbidity and mortality rates. Univariate and multivariate logistic regression tests were performed to search independent predictors of lymph node metastases and postoperative recurrence. **Results.** A total of 88 patients underwent a laparoscopic colonic resection due to colonic polyps during this period. 51% were male and the mean age was 65 years old (40-95). Polyps average size was 22 mm(range 5-60 mm) and the most frequent morphology was: 0-I s (sessile) 38%, 0-IIa (flat-elevated) 30% and 0-Ip (pedunculated) 24%. 82% of the polyps presented in situ carcinoma and 18% adenocarcinoma. Depth of invasion of the adenocarcinomas was: sm3 47%, sm1 30% and sm2 20%. Only 20% had poor histological differentiation and 6% lymph vascular invasion. Endoscopic resection with curative intention was performed in 50% of patients of whom only 9% presented complete endoscopic resection (all of them with submucosal invasion). Postoperative average length of stay was 4,9 days. Postoperative morbidity rate was 17% with only 6% patients requiring a reoperation. Mortality rate was 1.1%. 66% of the patients had at least one year of follow-up. Prevalence of lymph node metastasis was 0% in patients with in situ carcinoma and 7% in those with adenocarcinoma. Only one patient (7%) with adenocarcinoma (T1 (sm3) N0) presented local recurrence after surgical resection and none of them distant metastases. We didn't find any independent predictor of lymph node metastases or local recurrence. **Conclusion.** We observed similar rates of lymph node metastases, postoperative recurrence and surgical related complications, after colonic resection for colonic polyps, as reported in the literature.

PREVALENCE OF RESIDUAL NEOPLASTIC TISSUE AFTER ENDOSCOPIC RESECTION OF COLONIC NEOPLASTIC POLYPS:CORRELATION WITH THE SURGICAL SPECIMEN

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Background. The endoscopic resection of neoplastic colonic polyps may be curative depending on the depth of invasion and the presence of polypectomy margins free of disease. Information regarding the prevalence of residual neoplastic tissue (RNT)after polypectomy is scarce. **Aim.** To determine the prevalence of RNT in surgical specimens from patients undergoing colectomy after endoscopic resection of malignant colon polyps, and to evaluate the relationship between RNT status and the type of polypectomy, the resection margins and the depth of invasion. **Methods.** All patients with colonic neoplastic polyps treated by laparoscopic colectomy in a private hospital in Buenos Aires between January 2003 and March 2011 were prospectively analyzed. Those with polyps containing in situ or invasive carcinoma in whom an endoscopic polypectomy with curative intention was performed before surgery were included. The following information was collected: demographic data, polyp morphology according to Paris classification, type of polypectomy performed and histology. The polyp resection margins informed by the pathologist were classified into three groups: complete, incomplete and indeterminate. The measured outcome was the proportion of patients with RNT in the surgical sample. Results were expressed in percentages, proportions were compared using chi square test, a p value<0.05 was considered significant. **Results.** Out of 155 patients undergoing colectomy por colonic polys, 46 with in situ or adecarcinoma and a previous attempt of curative endoscopic polypectomy were included. Fifty-two percent were men, the average age was 63 (40-91). Polyp morphology was: 0-Is (sessile) in 64%, 0-Ip (pedunculated) in 17% and 0-IIa (slightly elevated) in 13%, the average polyp size was 18 mm (3-35). Seventy-one percent of the polyps contained in situ carcinoma and 26% invasive adenocarcinoma ((from which 4 were poorly differentiated, and two showed lymphatic or vascular invasion. RNT was found in the surgical specimens of 56% the patients, and its prevalence was significantly higher following polypectomy with forceps (71%) or a mucosectomy (55%), than a polypectomy with snare 26%)($P < 0.05$). Regarding polypectomy margins RNT was found in 51%, 43% and 0% of incomplete, indeterminate and complete resections respectively. Only the difference between complete and incomplete resection was statistically significant ($P < 0.05$). No difference in RNT was found between polyps with in situ carcinoma (33%) and invasive adenocarcinoma (44%) ($P = 0.7$). **Conclusion.** A high prevalence of RNT was observed following forceps polypectomy, and when incomplete or indeterminate polypectomy resection margins were informed.

INCIDENCE OF BLEEDING FROM INCIDENTAL COLONIC ANGIODYSPLASIA

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Background. There is little evidence on the incidence of bleeding from incidental colonic angiodysplasias (ICA) and the natural history of this lesion is still unknown. **Objective.** To investigate retrospectively the incidence of bleeding from incidental colonic angiodysplasias. **Methods.** We reviewed the electronic records of all patients who underwent colonoscopy between August 2004 and March 2010. ICA was defined as a lesion found in patients without clinical history of gastrointestinal bleeding (hematochezia, melena, ferropenic anemia or positive hemoccult).Patients with a history of colonic neoplasia, inflammatory bowel desease or treatment with external radiation to the abdomen were excluded. We analysed demographic data and determined the incidence of bleeding during follow-up. **Results.** Of 28,534 patients who underwent colonoscopy during the study period, 468 (1.64%) had colonic angiodysplasias, of whom 122 (0.4%) met inclusion criteria and had full colonoscopy to the cecum. Mean patient age was 66.4 ± 10.9 SD and the female/male ratio was 2/1. The most common location of ICA was the cecum and ileocecal valve, followed by the ascending colon. Five patients died from unrelated causes and 15 were lost during follow-up. The remaining 102 patients with ICA were followed for an average period of 42 months (range 12 – 80). Bleeding, confirmed by colonoscopy, occurred in 2 patients (incidence density: 5.6 bleeding episodes per 1,000 patient-year (95%CI 1.40-22.39) and required hospitalization and urgent endoscopic treatment. Both patients were under oral anticoagulation, initiated after diagnosis of ICA. None of the remaining 100 patients with ICA developed lower intestinal bleeding, excepting one who presented with ferropenic anemia of uncertain diagnosis but refused colonoscopy. Of these 100 patients only one received oral anticoagulation. **Conclusion.** On short-term follow-up, the incidence of bleeding from ICA was low and probably related to anticoagulation therapy.

USEFULNESS OF CURRENT POST POLIPECTOMY SURVEILLANCE INTERVALS: EXPERIENCE IN LARGE VOLUME ARGENTINEAN ENDOSCOPY CENTER IN SOUTH AMERICA

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Introduction. Adenomas resection and subsequent surveillance reduce the risk of Colorectal Cancer (CRC). Surveillance Intervals (SIV) will be defined by endoscopic findings in baseline complete colonoscopy (CC) performed according to quality indicators for colonoscopy, and histology. Despite the guidelines, the implementation of this strategy is suboptimal. Objectives. 1.Estimate compliance to post polypectomy surveillance intervals according to US Multi-Society Task Force on Colorectal Cancer and American Cancer Society recommendations and describe endoscopic findings. 2. Estimate the prevalence of advanced adenomas and / or ≥ 3 adenomas any size in follow up colonoscopy. **Materials and methods.** For this retrospective, descriptive and cross-sectional study, reports from baseline and subsequent CC with polypectomy and respective pathology reports were reviewed. This study included adults patients from single ambulatory endoscopic center (Gedyt) in Buenos Aires, Argentina between January 2006 and December 2009. Exclusion criteria were incomplete CC, high risk patients for CRC, incomplete or piece meal resection , intramucosal adenocarcinoma (IM ca) and unspecific findings in histology. Physicians ´compliance to recommendations, endoscopic findings and prevalence of advanced adenoma or ≥ 3 any size adenomas at subsequent CC were studied. Shortened and lengthened intervals were established when colonoscopies were respectively performed earlier or later than the recommended interval; Follow up studies performed within 20% of the interval time were accepted as compliant strategies. Referring physicians specialties were evaluated as control variables and sub classified in "Gastroenterologists" and "others". Informed consents were signed before the study. Statistical Analysis: VCCSTAT Version 2.0, copyright Instituto de Metodología Dr. Vicente C.Castiglia; validated with EPI INFO software was used and 95% CI were estimated. **Results.** 779 patients were evaluated and 662 patients were included; 56% were male, mean age was 46 years (range 18-74). 1. Adherence to SIV and endoscopic findings are described in table 1. 2. The prevalence of advanced adenomas and / or > = 3 adenomas any size in follow up CC performed at shortened IV are described in Table 2. No polyps were diagnosed in CC performed at lengthened or recommended IV. There was no significant difference between referring physician´s specialty and compliance to recommended guidelines. Conclusions. Poor compliance to recomended SIV is evidenced by the majority of shortened intervals. In this sample, advanced adenomas and / or ≥ 3 any size adenomas were found in 14 out of 100 patients. While recommended SIVs appear to be appropriate and useful, educational strategies must be implemented to achieve better physicians compliance.

COLONOSCOPY WITHDRAWAL TIMES AND ADENOMA DETECTION DURING SCREENING COLONOSCOPY

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Introduction. Colonoscopy is widely recommended as the best method for Colorectal Cancer (CRC) screening. Being performed within ASGE quality indicators for colonoscopy these procedures are effective, safe and well tolerated. The U.S. Multi-Society Task Force and ASGE estimate that Adenomas Detection Rate (ADR) in asymptomatic healthy subjects ≥50 years should be 25% in men and 15% in women. According to experts, 6 minutes is the minimum length of time to allow adequate inspection during instrument withdrawal. **Objective.** To estimate if ADR is different in colonoscopy withdrawal times of < 6 minutes with the rate of those who had mean withdrawal times ≥ 6 minutes. **Materials and methods.** CRC average-risk adult population was included. Risk factors for CRC and adenomas, incomplete colonoscopies and colorectal surgeries were exclusion criteria.The study was carried out in an endoscopy center in Buenos Aires, Argentine, between august 2010 to 2011. The study design was prospective, comparative, and observational and cross sectional. Colonoscopies were performed by 11 operators under sedation, administered by anesthesiologists. Polietilenglicol (PEG) with and without bisacodyl was used for cleansing. Polyps were resected with forceps, snare or Endoscopic Mucosal Resection (EMR).Histological assessment was done by three experienced pathologists in gastrointestinal tract. The protocol was approved by IRB. Statistical analysis: SPSS V16; 95% CI estimation, Chi Square, Fisher, Student test, Kolmogorov-Smirnov test, ANOVA, and Bonferroni test were used. **Results.** 594 patients were enrolled. Sample size characteristics are summarized in Table 1. 1. ADR was 23.4% in the group of <6 minutes (G1) vs. 21.8% in the group ≥ 6 minutes (G2), (P = 0.725). The analysis of the number of adenomas showed that higher percentage of patients with 2 or 3 adenomas were found in G2; this difference was statistically significant (P = 0.003). The differences between average withdrawal time according to number of adenomas were statistically significant (P < 0.001). Age, gender, time of day for performing the procedure and cleansing preparation were evaluated as possible factors for this finding. It was observed that patients with ≥ 2 adenomas were significantly older than patients with at least 1 adenoma (P = 0.047). Conclusions. In our series no difference in ADT was found in different withdrawal times; however the number of adenomas detected in the procedures was higher in older patients who had colonoscopies with withdrawal times ≥ 6 minutes. Future studies are needed to explain this finding.

Table1

	Withdrawal time < 6 min (G1)	Withdrawal time • 6 min (G2)
Age (average)	54.82	58.22
Females	55.8% (n:155)	54.7% (n:173)
Males	44.2% (n:123)	45.3% (n:143)
Total	100% (n:278)	100% (n:316)

NARROW BAND IMAGING: UTILITY IN BARRETT ESOPHAGUS DIAGNOSIS

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Introduction. Esophageal adenocarcinoma increased its incidence exponentially in recent decades, however Barrett Esophagus (BE) screening, its precursor, is even controversial. The Seattle Protocol is considered to be the optimal method for detecting early cancers but it is difficult to implement, time consuming and it is associated with a sampling error rate up to 60%. Considering these limitations, new endoscopical imaging techniques have been developed for targeting biopsies, increasing accuracy in diagnosis. Objectives. 1) Describe positivity rate (concordance) of mucosal patterns with Narrow Band Imaging (NBI) in patients with BE. 2) Compare positivity rates of mucosal patterns with NBI in patients with BE with Glandular Metaplasia (MG). **Materials and Methods.** Adult patients with endoscopic suspicion of BE and columnar metaplasia were included. Esophagitis, coagulopathies, esophageal varices, previous esophageal or gastric surgeries, and poor quality images were exclusion criteria. The study was conducted between 2010 and September 2011. Design: observational, comparative, prospective and cross sectional. Endoscopies were performed under sedation with propofol; Olympus Evis EXERA II GIF 180 endoscopes were used for the procedures. BE diagnosis was confirmed by a senior endoscopist who reexamined images. Mucosal (flat, villous or hairy and other) and vascular (regular or irregular) patterns were compared with histology. Intestinal Metaplasia (IM) was the criterion for the diagnosis of BE. All patients signed informed consent before the procedures. Statistical analysis: VCCstat 1.0. Copyright Instituto de Metodología Dr. Vicente C.Castiglia; validated with EPI INFO software was used and Confidence Intervals 95% were estimated; significance level was set at alpha 0.05. **Results.** 122 patients were included in the study. 67% (82 /122) were male, mean age was 57 years (range 27-87); all were white. Hiatal hernia was diagnosed in 55% (67/122). Circunferential BE was described in 54% (66/122) and tongue like features were diagnosed in 46% (56/122); Short esophagus was present in 65% (80/122). IM was diagnosed in 64% (78/122) and GM in 36% (44/ 122). Mucosal patterns with NBI and histology are detailed in table. 1) Positivity rate of villous pattern with NBI in patients with BE was 76% (IC 95% 63-85). 2) Positivity rate of villous pattern with NBI in patients with GM was 24% (IC 95% 14-37). Based on our results, villous pattern with NBI is present in 3 of 4 patients with IM. Conclusions. The NBI is a useful tool for detecting columnar metaplasia. The endoscopic mucosal pattern seems to be specific for the type of metaplasia; This finding is a useful tool for improving accuracy in targeting biopsies for diagnosis and surveillance.

SERRATED NEOPLASIA OF THE COLON: SHOULD POST POLYPECTOMY INTERVALS BE THE SAME AS FOR CONVENTIONAL ADENOMAS?

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Introduction. The concept that serrated adenomas evolve into Colorectal Cancer (CRC) through a different molecular pathway has recently aroused; However, specific guidelines for their management have not been addressed. Objectives. 1) Estimate the prevalence of serrated adenomas, High Grade Dysplasia (HGD) and/or adenocarcinoma in these lesions. 2) Describe endoscopic findings in surveillance colonoscopy. **Materials and methods.** This is descriptive, retrospective, and cross sectional study for the first objective and longitudinal for the second one. Colonoscopy reports from an endoscopy unit in Buenos Aires city, Argentine, between 2001 and 2010 were reviewed. Full colonoscopies were performed under sedation, administered by anesthesiologists. Polietilenglicol (PEG) with and without bisacodyl was used for cleansing. Lesions were classified as "polypoid" or "non-polypoid". Snare polypectomy or endoscopic mucosal resection (EMR, inject-lift-cut technique) was performed according to polyp´s morphology and size. Histological assessment was done by three experienced pathologists in gastrointestinal tract, who used Vienna Classification. Synchronic and metachronic lesions were also registered, when available. Follow-up was done 30%. All patients signed Informed Consent before performing the procedure. Statistical Analysis: VCCSTAT 2.0, Copyright Instituto de Metodología Dr. Vicente C.Castiglia; validated with EPI INFO software was used and 95% Interval Confidence were calculated for the mentioned variables. **Results.** 24,610 colonoscopy reports were reviewed and 196 patients with serrated adenomas were identified. 48% (94/196) were male, average age was 51 years (range 19-83). All were caucasic. 1) The prevalence of serrated adenoma was 0.8 % (95% CI 0.7 – 0.9), and HGD and adenocarcinoma in these lesions was 3% (95% CI 1-6.5). Endoscopic features of serrated adenomas are summarized in Table 1. Most frequent polyps were sessile, size ≤10mm and located in right colon. Resection was complete in all cases. Synchronic lesions were found in 46% (95% CI 39-53). Histological findings were: adenomas (44%), hyperplasic polyps (29%), HGD and adenocarcinoma (2.3%). 2) Follow up was done in 30% (59/196); mean follow up was 3.5 years (range 1 -6); metachronic lesions were found in 40 % (24/59); histological findings consisted of hyperplasic polyps (70%) and adenomas (30%). Conclusions. Serrated adenomas have a low prevalence. HGD and/ or adenocarcinoma can develop in almost 3 of 100 these patients. High rate of synchronic and metachronic lesions enhance the need of improving quality indicators for colonoscopy. Natural history of these polyps should be better understood for specific surveillance.

Table 1. Endoscopic features of serrated adenomas.

Characteristic		n	% (CI 95 %)
Size	• 10mm	133	66 (59-73)
	>11 • 20mm	60	30 (24- 37)
	>21•30mm	5	2.5 (1-6)
	•31mm	1	
Morphology	pedunculated	5	2.5 (1-6)
	sessile	134	67 (60-73)
	flat	60	30 (24-37)
Location	ceccum	48	24(18-25)
	ascending	57	28 (22-35)
	transverse	25	12 (8.5-18)
	Descending	17	8.5 (5-13)
	Sigmoid	30	15 (10-21)
	Rectum	22	11 (7-26)
Type of resection	Snare polypectomy	141	70 (60-73)
	EMR en bloc	45	22 (17-29)
	EMR piece meal	13	6.5 (4-11)