Publicamos los resúmenes de los trabajos realizados en la Argentina y aceptados para su presentación en la *Digestive Disease Week 2014* realizada en Chicago (EE.UU.) del 3 al 6 de mayo.

GASTROENTEROLOGÍA

CLINICAL RISK FACTORS FOR COMPLICATIONS AFTER LAPAROSCOPIC ILEAL-POUCH- ANAL ANASTOMOSIS IN PATIENTS WITH ULCERATIVE COLITIS

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Introduction. Although most patients with ulcerative colitis (UC) are managed successfully with medical therapy, there are a number of patients who require a surgical treatment. The restorative proctocolectomy is the procedure of choice. In the last years the laparoscopic approach has gain more popularity but there are few studies that examined clinical risk factors for laparoscopic postoperative complications. **Aim.** To determine the prevalence and clinical risk factors for complications after laparoscopic ileal-pouch-anal anastomosis (LAP-IPAA) among patients with UC. **Materials and methods.** A retrospective analysis was done using a prospective data base. Sixty patients with UC who underwent LAP-IPAA from January 2003 to June 2013 were included. Demographic, clinical and surgical characteristics data were collected from medical records (age at diagnosis and at surgery, gender, body mass index [BMI], smoking status, extent and activity of disease, preoperative treatment, duration of disease prior to surgery, extraintestinal manifestations, indication for surgery, elective or emergent surgery, number of steps of procedure). Univariate analysis was performed to assess risk factors for postoperative complications using Fisher's Test. Risk was measured in odds ratio (OR) and its corresponding confidence intervals 95% (CI). A P value ≤ 0.05 was considered statistically significant. **Results.** Twenty nine patients (48%) had less than five years since diagnosis. The average age was 35 (16-73) years, 62% were men and 79% had BMI ≤ 25. Most patients had pancolitis (60%) and 46 (77%) had moderate or severe activity disease. Fifteen patients (25%) had extraintestinal manifestations. Indication for surgery was: no response to medical therapy in 77% (steroid dependent in 35% and steroid refractory in 65%), colorectal cancer/dysplasia in 20% and refractory colonic stricture in 3%. Prior to surgery, 27% received intravenous steroids, 32% oral steroids, 8% thiopurines, 7% cyclosporine and 2% biologic therapy. Most of the procedures were elective (70%) and performed in two steps (53%). The prevalence of postoperative complications was 41/60 (68%) and 5 of these (12%) required reintervention (4/5 anastomosis site dehiscence and 1/5 pouch fistula). BMI ≤ 25 was associated with postoperative complications within the first month after surgery (OR 4.08, CI 0.57-15.35, $P = 0.02$). The use of thiopurines and cyclosporine prior to surgery was associated with fewer postoperative complications: OR 0.082 (CI 0.03-0.83, $P = 0.016$) and OR 0.109 (CI 0.00-1.18, $P = 0.004$), respectively. **Conclusion.** The use of thiopurines and cyclosporine are associated with fewer complications after LAP-IPAA. Patients with BMI ≤ 25 have increased risk for postoperative complications. The majority of these are minor and occured in the early outcome.

COGNITIVE PERFORMANCE IN PATIENTS WITH ACTIVE CELIAC DISEASE. PRELIMINARY RESULTS OF A PROSPECTIVE STUDY

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Background. At diagnosis, 10% of patients with celiac disease (CD) may present neurological and psychiatric symptoms such as ataxia, periphery neuropathy, seizures and psychological distress. Recent studies with small number of patients have suggested a cognitive impairment in patients with active CD where amnesia, acalculia, confusion and personality changes seem to be the main features. **Aims.** 1- To determine whether CD patients have cognitive impairment at the time of diagnosis; 2- To compare their cognitive performance with that of a population with similar symptoms but in whom CD was ruled out. **Materials.** From March 2013 to September 2013, 38 patients (age range: 18- 50 years) attending the small bowel clinic due to symptoms and signs compatible with CD were enrolled in a prospective study irrespective of the final diagnosis. Patients having former diagnosis of neurological or psychiatric comorbidities were excluded. All patients underwent diagnostic procedures. The diagnosis of CD was based on the concordance of positive CD-related serology and presence of histological damage in duodenal biopsies (Marsh stage ≥IIIa). At baseline and without previous diagnosis, all patients were submitted to cognitive (ACE-R and IFS tests) and psychological (Beck´s Depression Inventory and STAI tests) evaluation. The cognitive performance of CD patients was compared with that of patients in whom CD was ruled out (controls). **Results.** Twenty-eight out of 38 subjects (73.7%) were diagnosed with CD. Patients and controls did not differ in gender ($P = 0.65$), age ($P = 0.50$) or years of schooling ($P = 0.15$). Compared with the control population, CD patients tended to have better cognitive performance as assessed by the ACE-R test. ($P = 0.06$). We found no differences in frontal function between groups as assessed by the IFS test ($P = 0.77$). CD patients had a trend for higher depression scores (Beck´s Depression Inventory: P = 0.08) but similar anxiety trait (STAI: $P = 0.94$). **Conclusions.** This is the first prospective study assessing the relationship between CD and cognitive performance of young adult patients at the time of diagnosis. Our preliminary data do not show evidence to support this relationship. However, these results should be considered with caution since the low number of patients and controls enrolled constitutes a limitation that precludes definitive conclusions. Enrollment of patients is ongoing.

GASTROINTESTINAL BLEEDING IN PATIENTS WITH HEMORRHAGIC HEREDITARY TELANGIECTASIA: A CROSS SECTIONAL STUDY

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Introduction. Hereditary hemorrhagic telangiectasia (HHT) is an autosomal dominant disease with a prevalence of 1:5000. It is characterized by the presence of mucocutaneous telangiectases and arteriovenous malformations that can affect the gastrointestinal (GI) tract and cause gastrointestinal bleeding (GIB). Nearly 80% of HHT patients have GI telangiectases and 25% experience overt GIB. In the setting of iron deficiency anemia and mild epistaxis, the GI tract is a potential source of bleeding. Prevalence of occult and overt GIB, especially in patients with mild epistaxis, has not been fully established. **Aims.** The main objective was to describe the prevalence of overt and occult GIB in HHT patients. Secondary objectives were to estimate the association between unexplained iron deficiency anemia and overt GIB, and assess quality of life in HHT patients with history of GIB. **Methods.** Patients from the HHT Unit of the Hospital Italiano de Buenos Aires were included. We defined overt GIB as melena, hematochezia or hematemesis. Iron deficiency anemia in the absence of epistaxis or with a mild severity index (Sadick Grade I epistaxis) was defined as unexplained iron deficiency anemia (UIDA). Occult GIB was defined as UIDA in the absence of overt GIB. Prevalence of occult GIB, overt GIB and UIDA were estimated. Endoscopic location of the lesions was described. The association between UIDA and overt GIB was calculated. Quality of life was assessed by EuroQol visual analog scale. **Results.** At the time of the study, 146 patients were included in the HHT Unit. Prevalence of GIB was 40.4% (n=59), mean age was 54 years (SD 14.5 y) and 72.9% (n=43) were women. Prevalence of overt and occult GIB was 24.7% (n=36) and 15.8% (n=23), respectively. Vascular malformations were localized mostly in stomach (54.2%) and duodenum (40.7%). Twenty four percent (n= 14) were admitted to the hospital for GIB, 6.8% (n=2) of them to the intensive care unit. Median EuroQol score was 6 (IQR=3) and 8 (IQR=2.25) in patients with and without history of GIB, respectively (P = 0.02). Twenty eight percent (n=41) had UIDA. Prevalence of overt GIB was considerably higher in patients with UIDA in comparison to those without it [44% (n=18) vs. 17% (n=18); P = 0.001; OR = 3.78; 95% CI 1.7-8.4]. **Discussion.** Prevalence of overt GIB in HHT patients was similar to previous studies. Overt GIB was significantly higher among patients with unexplained iron deficiency anemia. Upper endoscopy is a reasonable initial approach in these patients given that most of the lesions were located in the upper GI tract. Patients with history of GIB reported a poorer quality of life. Further research regarding quality of life and diagnostic and therapeutic approaches in HHT patients with GIB are needed.

DYNAMIC ANAL ULTRASONOGRAPHY TECHNIQUE IN THE ASSESSMENT OF ANORECTAL DYSFUNCTION IN PATIENTS WITH OBSTRUCTED DEFECATION

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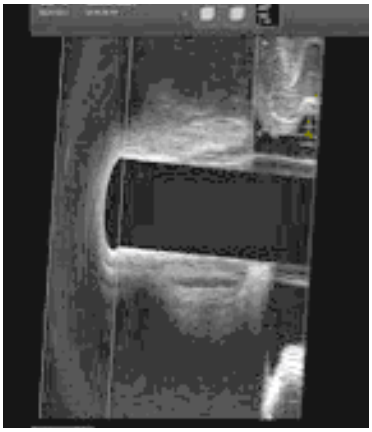
Aim. To describe a recently method to assess obstructed defecation syndrome (ODS) and show the results of our experience. **Material and Methods.** Patients referred with symptoms of ODS between May 2011 and May 2013 were studied by anorrectal dynamic ultrasonography technique. We use the technique of echodefecography described by Murah-Regadas et al. The test were analysed by two experienced investigators. **Results.** We performed 89 echodefecography in 88 patients in a period of 24 months. EDF revealed rectocele in 65%, intussusception in 54% and anismus in 45% of patients. **Conclusion.** Echodefecography may be used to assess patients with obstructed defecation, as it is able to detect the same anorrectal dysfunctions found by defecography. It is minimally invasive, well tolerated, avoids exposure to radiation and clearly demostrates all the anatomic structures involved in defecation.

Results.

Disease	N	%
Anismus	48	54
Rectocele	59	66
Grade 1	21	23
Grade 2	32	36
Grade 3	6	7
Intussusception	40	45
Enterocele	7	8



Echodefecography showing rectocele.

HOW DOES SPECIFIC SEROLOGY MATCH WITH ESPHGAN SEROLOGIC GUIDELINES FOR DIAGNOSIS OF CELIAC DISEASE IN A PROSPECTIVE COHORT OF ADULTS WITH HIGH PRETEST PROBABILITY?

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Background. Intestinal biopsy is considered mandatory for the diagnosis of celiac disease (CD). This has been recently challenged by several studies and the 2012 ESPGHAN guideline proposing an appropriate clinical and serological algorithm that could be used to reduce the need for duodenal biopsy. This provocative strategy has been confirmed by some studies but rejected by others. However, all these studies were performed on the basis of retrospective analyses of biased populations. Prospective evaluation of patients with confirmed histological diagnosis is important to clarify this controversy. **Aims.** 1-To review the performance of serology tests in a prospective and consecutive series of adult patients with high pretest probability for CD; 2- to compare performance of serologic tests with the ESPGHAN serologic algorithm; and 3- to establish the best serologic algorithm for diagnosing CD using antibody tests detecting different antigens. **Materials.** We re-analyzed data from all patients enrolled in a previous prospective study (WJG 2010; 16: 3144) where consecutive adults suspected of intestinal disorders (high pretest population) were enrolled. Diagnosis of CD was based on histology (Marsh´s stages ≥3a) in all patients irrespective of serology. CD-related serology consisted of seven different assays but we only report the performance of tissue transglutaminase (tTG) IgA, deamidated gliadin peptides (DGP) IgG and the combination of both (INOVA Diag. Inc.). Serologic performance was compared with the ESPGHAN serologic criterion (cut-off >10 times the upper limit of normal -ULN-), the best cut-off (area under the ROC) and the cut-off suggested by the manufacturer. **Results**. Sixty-three of 161 patients (39%) had histological criteria for CD. According to the ESPGHAN criterion, IgA tTG sensitivity was 22% with 100% positive predictive value (PPV). The best cut-off value (34 AU/mL) would detect 93.6% of patients with 100% of PPV. Finally, the manufacturer cut-off (20 AU/mL) had 95.2% sensitivity and 97.9% PPV. The ESPGHAN criterion used for IgG DGP was 3.2% sensitive with a PPV of 100%. The best cut-off (was similar to that of the manufacturer: 20AU/mL) was 95.2% sensitive and had 100% PPV. Any test was positive (>20AU/mL) in all patients and both were concomitantly positive in 90.5% of cases with100% of PPV. **Conclusions.** This prospective study indicates that, under particular clinical circumstances, a serologic strategy can be used to avoid duodenal biopsy in the diagnosis of adult patients with CD. The need for biopsy could be avoided in a minority of patients by using the ESPGHAN serologic criterion. Our results suggest that the best serologic strategy for a high pretest population seems to be the association of tTG IgA and DGP IgG. In such context, biopsy could be avoided in more than 90% of the cases when both tests are positive.

IMPAIRED BONE MICROSTRUCTURE IMPROVES AFTER ONE-YEAR ON GLUTEN-FREE DIET. A PROSPECTIVE LONGITUDINAL STUDY IN WOMEN WITH ACTIVE CELIAC DISEASE

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Background. We have recently identified a significant deterioration of trabecular and cortical microarchitecture in peripheral bones of patients with undiagnosed celiac disease (CD) by using high resolution-peripheral quantitative computed tomography (HR-pQCT). Such finding may underlie bone fragility and lead to fractures in these patients. Up to now, the effect of the gluten-free diet (GFD) on microstructural parameters of peripheral bones has not been assessed. **Aim.** To explore one-year changes of bone microstructure associated with the GFD in a prospective cohort of premenopausal women with newly diagnosed CD. **Materials.** We prospectively enrolled 31 consecutive females with newly diagnosed CD. Up to now, 25 patients have been reassessed one-year after diagnosis. Clinical and biochemical status, CD specific serology, assessment of the degree of compliance with the GFD, bone densitometry and microstructural determinations (HR-pQCT) were performed at both time points. HR-pQCT bone volumetric and structural measurements were determined at the distal non-dominant radius and tibia. Parameters of patients were also compared with those of 22 healthy women of similar age and body mass index. **Results.** Compared with the baseline z-score, the one-year bone mineral density measured by dual energy x-ray absorptiometry (DXA) improved significantly at the distal radius (mean±SD) (-1.94±1.27 vs. -1.43±1.06; $P < 0.02$) but not at the lumbar spine level. The microstructure of the trabecular compartment in the distal radius was significantly improved (trabecular/bone volume fraction, trabecular density and trabecular thickness: ($P < 0.0001$) at the one-year time point. At the level of tibia, treatment was associated with significant increment of the total volumetric density ($P < 0.01$), cortical density ($P < 0.002$), trabecular density ($P < 0.0001$), trabecular/bone volume fraction ($P < 0.0001$) and trabecular thickness ($P < 0.002$). In contrast, the cortical thickness decreased significantly in both sites ($P < 0.001$). Compare to the control group there were no statistical significant differences in most trabecular parameters measured by HR-pQCT. **Conclusions.** This is the first study exploring the effect of a one-year GFD on microstructural parameters measured by HR-pQCT in patients with newly diagnosed CD. Our study shows that trabecular parameters impaired at the time of diagnosis improved significantly by treatment reaching values comparable to those in healthy controls. We postulate that bone microarchitecture improvement underlie the decreased risk of fractures observed after treatment with a GFD.

INCREASED PREVALENCE OF CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH COLONIC VASCULAR ECTASIAS: A CASE-CONTROL STUDY

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Background. Colon Vascular Ectasia (CVE) constitute a relevant cause of gastrointestinal bleeding. Its etiology is not well known. Tissue hypoxia leading to an increased liberation of pro-angiogenic factors could be a potential cause leading to arterio-venous malformations and ectasia. Risk factors related to micro- and/or macrovascular disease could be associated to the development of CVE. **Aim.** To compare the prevalence of cardiovascular risk factors between subjects with and without CVE. **Materials and Methods.** Adult subjects with at least one CVE found during colonoscopy were prospectively enrolled. Age and sex-matched control subjects without CVE were also enrolled in a 2:1 fashion. Patients with clinically-evident gastrointestinal bleeding were excluded. Variables recorded were: reason for colonoscopy, hypertension, diabetes, dyslipidemia, smoking, obesity, coronary heart disease (CHD), chronic kidney disease (CKD), aortic stenosis, presence of 2 or more risk factors. Chi-square test was used for comparison of categorical variables. Odds Ratios (OR) with their 95% Confidence Intervals were calculated. A multivariate analysis was performed using a logistic regression model. **Results.** Between January 2013 and October 2013, 53 subjects undergoing colonoscopy were found to have at least one CVE. Eighty percent of CVE were located at the caecum. Mean age was 67±10 years and 60% were male. Anemia was more frequent in the CVE group [33% versus 9.72%, OR 4.69 (1.46-14.69)]. Aortic stenosis prevalence was also significantly higher in the CVE group [18.9 versus 7.54%, OR 2.84 (1.05-7.71)]. Table 1 shows the results of univariate analysis. A significantly higher prevalence of hypertension, dyslipidemia and 2 or more risk factors were found in the CVE group. On multivariate analysis, only hypertension was significantly associated with CVE [OR 2.7 (1.24-5.87), P = 0.01]. **Conclusion.** A tendency towards increased prevalence of cardiovascular risk factors was found in those subjects with CVE. A significant association was found between CVE and hypertension.

OVERLAP SYNDROME OF HEREDITARY HEMORRHAGIC TELANGIECTASIA AND JUVENILE POLYPOSIS: A CASE SERIES

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Introduction. Hereditary Hemorrhagic Telangiectasia (HHT) features the presence of mucocutaneous telangiectases and arteriovenous malformations (AVMs) in solid organs and in the digestive tract. Curacao criteria and detection of ACVRL1, ENG and SMAD4 gene mutations are used for diagnosis. Juvenile Polyposis Syndrome (JPS) is diagnosed according to the amount and localization of juvenile polyps and family history of JPS. Both entities have a low prevalence. Changes in SMAD-related protein 4 cause a combined syndrome of juvenile polyps of the gastrointestinal tract and HHT called Overlap Syndrome. AVMs penetrance in JPS patients presenting such mutation is close to 100%. In this group, different authors suggest screening for HHT. **Objective.** To describe a case series of HHT-JPS Overlap Syndrome. Methods. We searched the HHT Institutional Unit Registry currently integrated by 185 patients. Five cases meeting the diagnostic criteria for HHT-JPS overlap syndrome were described. Clinical cases (See Table). **Discussion.** Previous studies show that around 2 % of HHT patients suffer JPS. On the other hand, up to 20 % of JPS patients are also affected by HHT. JPS/HHT Overlap Syndrome patients present with a clinical spectrum of both syndromes and develop AVMs at an earlier age than those who suffer isolated HHT. Moreover, presence of gastrointestinal bleeding, dysplastic lesions, gastrointestinal tract cancer and the need for surgery at an early age is quite frequent. All of our patients developed gastrointestinal bleeding and three of them underwent surgery for gastric and colonic dysplastic lesions. Even though JPS/HHT is not a prevalent condition, it has important health implications and its recognition allows an appropriate surveillance. Further studies are needed.

Clinical cases	Case 1	Case 2 (*)	Case 3 (*)	Case 4	Case 5
Age (years)	23	38	60	38	16
Gender	F	F	F	F	F
Age at presentation (years)	10	15	10	8	12
Presentation	Epistaxis	Epistaxis	Epistaxis	Epistaxis	Epistaxis
		HHT manifestation			
GI Telangiectasia	Yes	No	Yes	Yes	Yes
AVM in solid organs	Yes (pulmonary and hepatic)	No	Yes (hepatic)	Yes (pulmonary and hepatic)	Yes (pulmonary)
Clubbing	Yes	No	No	Yes	Yes
GI Bleeding	Yes	Yes	yes	Yes	Yes
Curacao Criteria	4/4	3/4	4/4	4/4	3/4
Cardiac malformation	No	Yes (IAC)	No	No	No
		Juvenile Poliposis manifestation			
Criterion 1: ≥ 5 colorectal JP	X	X	X	X	X
Criterion 2: JP anywhere in the digestive trast	X	X	X	X	X
Criterion 3: ≥ JP and family history		X	X		
Associated neoplasia	No	Yes (lesion whit LGD in stomach)	Yes (lesion whit HGD stomach)	No	No
Genetic tests	No	No	No	No	Yes
		Treatment of digestive tract lesions			
Medical	No	No	Yes	No	No
Endoscopic	No Yes (APC and P)	Yes (P)	Yes (APC and P)	Yes (P)	Yes (P)
Surgical	Yes (total colectomy SI resection)	Yes (total gastrectomy)	Yes (total gastrectomy)	No	No

PATIENTS WITH ACTIVE CELIAC DISEASE HAVE ALTERED INTERCELLULAR SPACES AND TIGHT JUNCTION STRUCTURE OF THE LOWER ESOPHAGUS THAT MAY EXPLAIN THE HIGH PREVALENCE OF REFLUX SYMPTOMS IN THESE PATIENTS

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Background. Patients with untreated celiac disease (CD) often complain of reflux symptoms, which in 30% of cases are considered moderate to severe (CGH 2011; 9: 214-9). The gluten-free diet leads to a rapid and persistent improvement in reflux symptoms and most cases do not require the use of proton pump inhibitors. The mechanisms involved in the expression of reflux symptoms in CD patients are unknown. **Objective.** We explored symptomatic and mucosal markers of permeability of the lower esophagus in patients with newly diagnosed CD at the time of diagnostic endoscopy, patients with symptoms of GERD but no CD (GERD controls) and healthy controls without symptoms (healthy controls: HC). **Methods.** A cohort of 23 consecutive patients with active CD at the time of diagnosis, 5 GERD control patients, and 11 HC subjects, were enrolled in the study. Nine out of 23 CD patients had GERD symptoms considered as moderate or severe (>2 points in the GSRS questionnaire). Endoscopic biopsies from the distal esophagus were obtained 2 cm above the z-line. Samples were assessed for histological damage, dilated intercellular space (DIS) scores by optical microscopy (OM) and electron microscopy (EM), and tight junction (TJ) mRNA expression for zonnula occludens-1 (ZO-1) and claudin-2 and -3 (CL-2; CL-3) using Real Time qRT-PCR. **Results.** Patients with active CD had increased DIS scores compared to HC subjects (OM: 8.0±3.1 vs. 2.2±2.5; P < 0.003 and EM: 31.7±9.5 vs. 15.0±5.1; $P < 0.04$) but similar to GERD controls. CD patients without GERD symptoms also had higher DIS scores compared to HC (OM: $P < 0.006$; EM: $P < 0.03$) but similar to those in CD patients with GERD symptoms. Overall CD patients had lower expression of ZO-1 than HC (CD patients with and without GERD symptoms: $P < 0.003$ and $P > 0.05$; respectively). A non-statistical trend for higher CL-2 and CL-3 expression was observed in CD patients compared with GERD controls and no differences were detected between CD subgroups with or without GERD symptoms. CD patients had similar expression of CL-2 and CL-3 compared to HC. **Conclusions.** Our study suggests an impairment of mucosal permeability in the distal esophagus of patients with active CD irrespective of the presence of GERD symptoms. The altered expression of ZO-1, and CL-2 and CL-3 may underlie loss of TJ integrity in the esophageal mucosa, an expression pattern that is reminiscent of intestinal permeability abnormalities observed in CD, and that may contribute to reflux symptom expression and its reversion by the gluten-free diet.

POSTCOLONOSCOPY COLORECTAL CANCER (PCCRC) IN A POPULATION OF A CLOSED SYSTEM OF HEALTH CARE PROVISION

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Background. Colonoscopy has now become the preferred option for colorectal cancer (CRC) prevention. Colon cancers diagnosed in the interval after a complete colonoscopy may occur due to lesions being missed, inadequate removal of precursor lesions, or a rapid progression of undetectable neoplasia. Recent studies have shown that the prevalence of the so-called "interval cancers" or PCCRC ranges from 2% to 9%. Tumors diagnosed in the interval between serial colonoscopy have a negative impact on our ability to reduce the incidence of colon cancer. Therefore, to determine the frequency of PCCRC is a key step in the quality control of a prevention program. Aim. To evaluate the rate of postcolonosocopy colorectal cancer (PCCRC) in a population of a closed system of health care provision. **Patients and methods.** In a cross-sectional study were retrospectively evaluated patients affiliated to prepaid health care system of an academic tertiary health care center (Health Maintenance Organization called "Plan de Salud del Hospital Italiano de Buenos Aires"). We identified individuals diagnosed with colorectal cancer in the HMO from January 2007 to August 2012 using the Colorectal Cancer Registry. We determined performance of colonoscopy using electronic database of endoscopy procedures that included 20,180 individuals referred for screening, 3,815 for surveillance, and 10,307 for diagnostic examinations. PCCRC was defined as those individuals who developed colorectal adenocarcinoma between 6 and 60 months after the negative initial colonoscopy or between 6 and 36 months after resection of a high-risk polyp (> 1 cm., villous component, high-grade dysplasia). We excluded all patients with incomplete colonoscopy, previous colorectal cancer, colonic polyposis or inflammatory bowel disease. **Results.** A total of 218 patients diagnosed with colorectal cancer were analyzed from the electronic record. We found 5 patients (4 women, mean age 75 years, range 69-81) who met the criteria of PCCRC. None of them belong to the subgroup with an indication of colonoscopy at 36 months. The prevalence of PCCRC was 2.3%. The average time between the initial colonoscopy and colorectal cancer diagnosis was 26 months (range 12 -40). In 4 of 5 patients cancer was located in the proximal colon and in 3 of the 5 patients described inadequate bowel preparation. No patient had advanced stage at diagnosis. **Conclusions.** In this population the rate of PCCRC is relatively low. In agreement with published data cancers are related to the proximal location , female gender and inadequate colonic cleansing. Additional study needed to determine whether PCCRC arise as a result of missed lesions, incomplete resection or accelerated neoplastic progressions.

PROTON-PUMP INHIBITORS' INFLUENCE ON LACTULOSE BREATH TESTS AND IRRITABLE BOWEL SYNDROME SYMPTOM SEVERITY

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Background. The lactulose breath test (LBT) has been proposed as a non-invasive method to assess the presence of small intestine bacterial overgrowth (SIBO). SIBO has been related to symptom ocurrence and severity on irritable bowel syndrome (IBS) patients. Previous evidence has suggested that the use of proton-pump inhibitors (PPIs) may facilitate the SIBO and could have a significant impact on the LBT results. Aim. To compare PPI effect on the SIBO prevalence, ocurrence and symptom severity in IBS subjects. **Materials and methods.** Between October 2012 and April 2013, IBS subjects were prospectively enrolled. Enrolled subjects were asked to undertake a LBT and to fill in a previously-validated questionnaire (IBS-SSS) in order to assess their symptom severity score. Also recorded were the variables of age, sex, IBS clinical pattern, PPI dosage and treatment. In each case, the area under the curve (AUC) of excreted hydrogen over time was calculated and the presence of the SIBO was determined according to previously published criteria (Pimentel et al, Am J Gastroenterol 2000; 95:3503-6). **Results.** Overall, 225 patients were enrolled. One hundred and twenty patients were on PPI treatment (PPI group) and 105 were not (non-PPI group). No significant differences on sex, age and IBS clinical pattern were found between groups. When comparing LBT results, no significant differences were found in the breath test AUC. Median AUC in the PPI group was 3776 (2124-5571) and median AUC in the non-PPI group was 4347 (2038-5481). SIBO prevalence was similar in both groups [27.5% vs 33%, OR 0.77 (CI95% 0.43-1.37)]. What is more, the difference remained unaltered after adjusting for PPI dose and treatment duration. IBS-symptom severity score was significantly higher in the PPI group [median 28.5 (23-26) vs 23 (15-29), $P = 0.01$]. **Conclusion.** PPI use in IBS patients failed to influence LBT results. Our results suggest that in some IBS patients, PPIs may worsen symptoms by mechanisms other than bacterial overgrowth.

RISK OF COLONIC NEOPLASIA IN PATIENTS WITH SPORADIC DUODENAL ADENOMAS: A MULTICENTER CASE-CONTROL STUDY

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Introduction. Although colorectal neoplasia is recognized to occur more frequently in patients with familial adenomatous polyposis (FAP), association with sporadic duodenal adenomas (SDA) has not been clearly established. **Aim.** To determine the risk of colorectal neoplasia among patients with sporadic duodenal adenomas. **Materials and methods**. A multicenter case-control study was conducted using the Gastroenterology and Endoscopy electronic data bases of three community hospitals to identify patients who underwent upper GI endoscopy and colonoscopy during a 7 year-period. Patients with SDA were regarded as "cases" and those without SDA were regarded as "controls". A telephonic survey was carried out to assess colorectal cancer (CRC) risk factors. For each case, two controls matched for age, sex, and first and second grade family history of CRC, were randomly selected. The main outcome evaluated was the risk of colorectal adenomas, advanced neoplastic lesions (ANL) and cancer. Risk was expressed in odds ratio (OR) with its corresponding 95% confidence intervals (CI). **Results.** A total of 70 patients with SDA met the above mentioned criteria and were included as cases and 140 as controls. There was no statistical significant difference between both groups with respect to: age, gender, CRC family history and main indication for colonoscopy ($P > 0.05$). Most adenomas were located in the second portion of the duodenum 40/70 (57%), the mean size of 8 mm (5-30mm). High grade dysplasia was reported in 15/70 (21%). Colonoscopy showed at least one adenoma in 30/70 (43%) cases and in 40/140 (28%) controls ($P = 0.04$ OR 1.87 CI 1.03 – 3.56), ANL in 9/70(13%) cases and in 12/145 (8,5%) controls ($P = 0,33$ OR 1,57 CI 0,57-4,27) and colorectal adenocarcinoma in 3/70(4%) cases and 3/140 (2%) controls ($P = 0.40$ OR 2,04 CI 0,31–13,10). **Conclusion.** In this multicenter case-control study, the largest that has been published, we found an increased risk of colorectal adenomas in patients with duodenal adenomas without FAP. Therefore, patients with duodenal adenomas should be encouraged to perform colonoscopy.

ROLE OF THE GALECTIN-1 IN THE PATHOGENESIS OF IBD

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Background. Inflammatory bowel diseases (IBD) are multifactorial disorders characterized by a chronic and relapsing intestinal inflammation. Galectin-1, a ubiquitous endogenous lectin, has been implicated in several chronic inflammatory disorders. **Aim.** We aimed to analyze its role in the colonic mucosa of patients with Crohn's disease (CD) and Ulcerative colitis (UC). **Material and methods.** Gal-1 expression was studied by qPCR, immunoblotting and histology in biopsies and resected tissues of patients with IBD (n=26) and control patients (n=20). Gal-1-specific binding ligands were also analyzed by flow cytometry in lamina propria and its physiological role in the induction of cell death was evaluated by flow cytometry. **Results.** We found in 21 biopsies of CD and 22 biopsies of CU that Gal-1 mRNA expression was increased in colonic inflamed areas ($P < 0.01$). However Gal-1 protein expression was lower as compared to non-inflamed areas. To clarify this controversial finding we cultured control biopsies with TNF-α (1, 5 and 10 ng/mL) and observed a dose-response increase in the expression and secretion of Gal-1 ($P < 0.05$). Additionally, fibroblast supernatants from IBD patients show the ability to cleave Gal-1 protein. Both findings could explain the dissociation between mRNA expression and protein secretion. Gal-1-specific binding sites were considerably reduced in isolated lamina propria CD4 or CD8 lymphocytes from inflamed areas (n=11), as compared to non-inflamed areas (n=10) or control samples (n=8) ($P < 0.05$). A consistent lower binding of PNA and C2GnT-1 expression was found in IBD samples, suggesting lower levels of asialo-core 1-O-glycans. When apoptosis was analyzed we found that 10 ng Gal-1 increased the frequency of annexin-1-positive cells in control patients (n=6) (17.94% with medium and 32,94 with 10 ng Gal-1. $P < 0.05$). Nevertheless no increased in the frequency of annexin-1-positive cells was observed in inflamed areas of IBD patients (n=5, $P = 0.9647$). **Conclusions.** In conclusion, we found a differential expression of Gal-1 and Gal-1-specific glycosylated ligands in biological samples of IBD. We also found that Gal-1 exerts a pro-apoptotic effect in T lymphocytes from non-inflamed areas, whereas T cells from inflamed areas are refractory to cell death. The reduced expression of this protein in inflamed areas and the absence of Gal-1-specific sites may have relevant implications in the survival vs cell death of mucosal T lymphocytes. This might impact in the persistency of the inflammatory process in the affected colon.

UNSUSPECTED PREVALENCE OF CONDITIONS PREDISPOSING TO CELIAC DISEASE IN THE AMERINDIAN TOBA COMMUNITY OF ARGENTINA: A STUDY ON GLUTEN CONSUMPTION, GENETIC PREDISPOSITION AND AUTOIMMUNITY MARKERS

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Background. The Toba indigenous ethnic community comprises more than 60,000 individuals living in very poor conditions in northeastern Argentina. The lower than average life expectancy in this population has been attributed, in part, to primary malnutrition, and very low socio-economic, sanitary and educational conditions. In recent years, they have experienced a change in dietary habits with wheat and wheat-products replacing ancestral alimentary practices mainly due to the governmental support. No studies have explored conditions predisposing to celiac disease (CD) in Amerindians. **Aims.** 1- To estimate the consumption of gluten; 2- To explore the genetic background (HLA DQ2/ DQ8 haplotype); and 3- To determine the prevalence of CD autoimmunity in a population of members of the Toba community requesting medical attention by a multidisciplinary sanitary mission. **Methods.** After written consent, individuals attending the mission underwent a detailed questionnaire by an expert nutritionist recalling the last 48-hs dietary intake. Gluten consumption was estimated by conventional formula. Clinical, biochemical and anthropometric parameters were collected. CD specific gene typing for the detection of HLA class II alleles was performed on DNA extracted from peripheral blood (DQ-CD Typing Plus. BioDiagene S.R.L.; Palermo; Italy). Serum samples were tested for IgA antibodies to tissue transglutamise (IgA tTG) and the deamidated gliadin peptides (DGP)/tTG Screen test. Those with positive results were tested for IgA endomysial (EmA) antibodies (INOVA Diagnostics Inc. San Diego, Ca). **Results.** One hundred and twenty-eight subjects (63% females) were enrolled. The median age of the study population was 31 yr (range: 3 to 72), and the mean body mass index was 27.1 kg/m2 (SD: 6.7). The estimated mean gluten consumption was 50 g/day (range: 4 to 185), which resulted higher than that recommended by National Nutritional Guideline (18 g/day). Sixty out of 116 subjects (51.7%) had alleles associated with CD. Fifty-six cases (95%) had alleles codifying for HLA DQ8 and three for DQ2. Three and four subjects had serum concentrations above the cut-off of risk established by our group (>3 times the upper limit of normal) for tTG and DGP/tTG Screen antibodies, respectively. Two of these patients had concurrent positivity for both assays. EmA was positive in one of these patients who also presented the haplotype HLA DQ2. **Conclusion.** Our study explores for the first time an Amerindian population previously unsuspected of having conditions predisposing to CD. The dietary analysis estimated a very high consumption of gluten due to the alimentary governmental support. The genetic background was dominated by alleles codifying for DQ8 antigen. We detected evidence of CD autoimmunity with at least one subject fulfilling serologic criteria of CD.

UTILITY OF INTRAGASTRIC BALLOON IN 385 OBESE PATIENTS: EXPERIENCE IN A SINGLE CENTRE IN BUENOS AIRES, ARGENTINA

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Introduction. Obesity, an epidemic with increasing incidence is associated with systemic comorbidities. Conservative management has a low rate of success in the short and long term; therefore novel endoscopic strategies have emerged as alternatives to bariatric surgery. The intragastric balloon (IGB) is a temporary, effective and safe treatment for weight loss. **Objectives.** 1.To describe changes in body mass index (BMI) in patients who had an IGB placed. 2. To describe patients' metabolic comorbidities and psychological features at admission. **Materials and methods.** The study was conducted in a private center for the obesity treatment between November 2007 and 2012. Patients ≥ 11 years referred for IGB placement and categorized as "suitable" for the procedure entered the study. Contraindications to the IGB were exclusion criteria. Study design: Interventionist, longitudinal, comparative and retrospective. Procedures: a) Patient selection: candidates were evaluated by a multidisciplinary team (internal medicine, gastroenterology, nutrition and psychology specialists);; b) IGB placement: it was placed with usual technique. Extractions were recorded as early (<7 days) and late (>7 days) and c) Nutritional monitoring: An hypocaloric diet and a physical activity plan were indicated. Follow up was established on a monthly basis. Patients were considered to be compliant to diet and exercise when they fulfilled 80% of the instructions received. Changes in BMI were expressed as the difference between baseline BMI and the registered at IGB removal. This was analyzed according to gender, diet and exercise compliance. Metabolic comorbidities registered were: hypertension, dyslipidemia (DSLP), type 2 Diabetes Mellitus (DM). Psychological traits evaluated were: anxiety, phobic anxiety, depression, hostility, impulsivity, obsessive-compulsive disorder, somatization and miscellaneous. Ethics: patients signed informed consent before the procedure. Statistical analysis: Medcalc 11.0.5, 95%CI; U test. **Results.** 385 patients were evaluated;; 66 % (254/385) were female, mean age: 41 years (range=13-70). 1. There was a BMI decrease of 5 points average (13 kg) in the overall sample and in patients who completed 6 months (n = 322: 83.6 %, 14 kg) (NS). The weight loss was higher in those who adhered to the diet and exercise (P = 0,0001). The metabolic comorbidities and psychological traits are recorded in the table. IGB early removal occurred in 58 patients (15 %, 95 CI=11-19) but most removals were late. 4 patients (6.3 %) were lost in the follow up. One patient (0.26 %) died with the ball placed. **Conclusions.** IGB was effective in all patients. Weight loss was higher in those who completed 6 months of treatment and were compliant with diet and exercise. The DSLP and depression were more prevalent metabolic comorbidity and psychological trait, respectively.

Table. Metabolic comorbidities and psychological traits registed in obese patients.

Comorbidities / psycological traits	n (%)	95% CI	n
Metabolic comorbidities			
HTA	15 (23	13,9 - 38,5	
DM	17 (26,0)	16,0 - 38,8	65
DSLP	49 (75,0)	63,0 - 85,0	
Pychological traits			
Anxiety	39 (16,0)	11,7 - 21,3	
Phobic anxiety	22 (9,0)	5,9 - 13,6	
Depression	89 (36,5)	30,5 - 43	
Hostility	29 (12)	8,3 - 16,8	243
Impulsivity	2 (0,8)	0,1 - 2,9	
Obsesive - compulsive disorder	17 (7,0)	8,3 - 16,8	
Somatization	17 (7,0)	4,3 - 11,2	
Miscellaneous	29 (11,9)	8,3 - 16,8	

SERRATED POLYPOSIS SYNDROME: PUSHING THROUGH PREVALENCE AND CLINICOPATHOLOGICAL FEATURES

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Introduction. Serrated polyposis syndrome (SPS) is characterized by the presence of multiple serrated polyps in the colon and may represent a risk for colorectal cancer (CRC). The SPS remains to be mostly unrecognized and not-well understood among other colorectal polyposis. The real prevalence and clinicopathological features of patients with SPS are not well established. **Objective.** To determine the prevalence and describe clinicopathological features of SPS. **Methods.** We retrieved records of patients with diagnosis of SPS between Aug 2007 and Oct 2013 from the endoscopy electronic database. Patients who met 2010 WHO SPS diagnostic criteria were included. Clinical and demographic data concerning age, gender, personal and familiar history of CRC, body mass index (BMI), smoking status and surgical history were collected and analyzed. Two gastrointestinal pathologists reviewed the colorectal polyps. Continuous and categorical variables were reported as media with range and percentages respectively. **Results.** Of the 19.618 patients who underwent colonoscopy, 40 (0.20%) had high suspicion of SPS and 30 (0.15%, 1.5/1000 colonoscopies) met the WHO criteria for SPS. The mean age at diagnosis was 60 years (36-78) and 19 (63%) were female. Twelve patients (40%) had type 1 and 18 (60%) had type 2 SPS. Seven of the 30 (23%) had familial history of CRC in first-degree relatives. No family history of SPS was observed in any patient. Personal history of previous advanced neoplastic lesion (ANL) or CRC was observed in 4 (13%) patients at diagnosis. Fifteen (50%) had smoking history and 8 (27%) were current smokers at diagnosis. The media BMI was 24.7 (17.8-33,4). The number of serrated polyps (SP) found during colonoscopy was: in six patients (20%) between 5-10 polyps, 5 (17%) between 10-20 polyps, 13 (43%) between 20-30 polyps and 6 (20%) more than 30 polyps. Of the evaluated serrated lesions the histopathological diagnosis was as follow: Sessile serrated adenomas 83 (55%), microvesicular hyperplastic polyps 39 (26%), goblet cell rich/mucin poor hyperplastic polyps 25 (16%) and traditional serrated adenomas 3 (2%). Thirteen patients (43%) had at least 1 conventional adenoma, five (17%) had at least 1 ANL and CRC was detected at diagnosis or during the surveillance in 3 patients (10%). These patients had TNM stage I CRC that were located in the right colon in 2 out of 3 cases. Surgery was performed in 7 patients (23%): due to CRC in 3, polyposis in 3 and impossibility of endoscopic resection in 1. One patient died in the post operatory period because of pulmonary embolism. **Conclusions.** SPS is a rare condition with high prevalence of CRC. This syndrome should be suspected and diagnosed correctly in screening programs.

ENDOSCOPÍA

UTILITY OF ENDOSCOPIC ULTRASONOGRAPHY IN THE DETECTION OF MICROLITHIASIS IN PATIENTS WITH NO OBVIOUS OBSTRUCTION OF COMMON BILE DUCT

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Introduction. Magnetic resonance cholangiopancreatography is the highest yield diagnostic procedure for evaluation of the biliary tract when choledocholithiasis is suspected. Endoscopic ultrasound (EUS) is an alternative method for diagnosing this disease and, nowadays, it is recommended when evaluating small common bile duct (CBD) stones. **Objective.** To estimate the positivity rate of EUS to detect biliary and /or distal pancreas microlithiasis in patients with low probability of obstruction. **Materials and methods.** Patients ≥ 18 years with low probability of distal obstruction were included consecutively for performing the EUS. Low probability of distal obstruction was registered when at least one of these criteria were present: a) Clinical: abdominal pain, jaundice and choluria; b) Biochemical: unexplained elevation of cholestatic enzymes, c) Images: dilatation of the CBD (> 8mm and > 10mm in cholecystectomies). Pregnancy, cholangitis or acute pancreatitis, history of pancreatitis and sphincterotomy were exclusion criteria. The study was carried out in a gastroenterology outpatient clinic, between May, 2011 and December, 2012. Design: observational, cross sectional and comparative study. Procedures: a) EUS: studies were performed under sedation with propofol by experienced operators. We used Olympus equipment MEN 1 radial, specifically, an echoendoscope at 7.5 and 12 MHz frequency. CBD lithiasis was diagnosed when a hyperechoic image with posterior acoustic shadowing in the CBD was present. Patients with positive EUS underwent endoscopic retrograde cholangio-pancreatography (ERCP). b) ERCP: were performed under sedation with propofol within a mean period of 35 days. Olympus equipment consisted in GIF 150 endoscopes with lateral vision. Biliary tract obstruction was diagnosed in one of these circumstances: negative images in the CBD after contrast administration, stones or biliary sludge extraction or no evident permeability of biliar tract after the procedure. Ethics: The protocol was approved by the local IRB. Statistical Analysis: VCCstat 2.0. package; 95%CI were calculated. **Results.** 67 patients were included; 67% (45/67) were women, average age: 57.82 years (range18-86), with no difference between genders. The indications of EUS were: abdominal pain 36% (24/67), positive ultrasound findings 34% (23/67) and biochemical alterations 30 % (20/67). EUS diagnoses are registered in the table (45/67). No lesions were found in 22 (32,8%) patients. The positivity rate of EUS for diagnosing small CBD stones was 90% (9/10). **Conclusions.** In this sample, the preliminary results showed evidence that the positivity rate of EUS for diagnosing microlithiasis was high. Most prevalent diagnoses were cholelithiasis and bile duct dilatation. It is necessary to enlarge the sample size to confirm these data.

WHAT ARE THE ENDOSCOPY ASSISTANTS BELIEFS REGARDING THEIR ENDOSCOPY TRAINING FOR OPTIMAL PERFORMANCE?

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Introduction. The endoscopy assistants play a key role in performing endoscopic procedures, and in recent years, their role have expanded to the participation of academic and teaching activities. The evaluation of their competition has been studied in reference to endoscopic procedures and reprocessing of instruments, however, standardized guidelines to evaluate and document their skills are needed. An initial step would be to assess the opinion that endoscopy assistants have on their training for optimal performance. **Objectives.** 1. To describe the endoscopy assistants beliefs regarding their endoscopy training for optimal performance. 2. To compare endoscopy assistants and physician endoscopists beliefs about mentioned topic. **Materials and methods.** Endoscopy assistants and physician endoscopists with seniority > 1 year in the institution were included. The study was conducted at three sites of an outpatient endoscopy center in November 2013. Design: observational,cross-sectional and comparative study. Endoscopy assistants beliefs regarding their endoscopy training were assessed using a self-administered questionnaire consisting of 5 questions (multiple choice) about the reprocessing of endoscopes, materials, endoscopists and patients assistance. The answers were considered to be correct when they were coincident with the ones reported by the most experienced assistants in a consensus. Ethics: the protocol was approved by the local IRB. Statistical analysis: VCCstat 2.0. 95%CI, Chi square. **Results.** 20 assistants (GA) and 19 physician endoscopists (GE) were included. The GA was younger (x age: 29.35 ± 7.02 years), with a predominance of female gender (19/1) and the majority (11/20) had <5 years in practice. The GE had a mean age of 40.5 ± 6.12 years, with a predominance of males (7/12) and most had > 10 years in practice. Correct answers are registered in the table. Beliefs were varied in both groups in all questioned topics except for the role of endoscopy assistant in close collaboration with the endoscopists during the procedure. Responses to this question coincided between both groups and with the consensus. No statistically differences were observed between the both groups (table). **Conclusions.** Our results show that endoscopy assistants beliefs on their training for optimal performance are varied except for their close cooperation with the endoscopists during the procedures; this concept was conclusive. The majority of the assistants, who had almost 5 years in the practice, considered that their performance would be optimal with less procedures than the value proposed by most experienced technicians. Considering that there are no established guidelines regarding the evaluation of endoscopy assistants skills, periodic assessments of their activities would be a useful tool to establish uniform criteria for their evaluation.

Table. Correct answers in endoscopy assistants and physician endoscopists.

Topic - question number		Endoscopy assistants n (%) 95% CI		Physician endoscopists n (%) 95% CI		*P*
Endoscopes reproccesing	Q1	4 (20)	5,7 - 43	2 (10,5)	1,3 - 33	
				2 (10,5)	1,3 - 33	NS
	Q2	2 (10)	1,2 - 31			
Materials and phisician endoscopist assistance	Q3	3 4 (20)	5,7 - 43	-	0 - 17	NS
	Q4	18 (90)	68 - 98	17 (89)	66 98	NS
Patients assistance	Q5	2 (10)	1,2 - 31	1 (5,26)	0,1 - 26	NS

INTRAGASTRIC BALLOON IN THE TREATMENT OF OBESE POPULATION: WEIGHT LOSS AND COMPLICATIONS

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Introduction. Obesity, a new global epidemic, is associated with multiple metabolic diseases and high mortality. The failure of long-term conservative treatment led to the emergence of new therapies. The intragastric balloon (IGB) is an effective, well tolerated and minimally invasive procedure for loosing weight. **Objectives.** 1. Estimate the weight loss in patients who had IGB inserted for at least 6 months. 2. Describe immediate and mediate complications. **Materials and methods.** We included patients ≥ 18 years with BMI ≥ 30 kg/m2 , ≥ 35 kg/m2 with comorbidities or patients at high risk or non-conforming for surgery despite its indication. Contraindications for IGB were exclusion criteria. The study took place at a gastroenterology outpatient center between September, 2009 and September, 2013. Design: Interventionist, prospective, comparative, longitudinal study. Methods: Patients were selected by a multidisciplinary team and included consecutively. The IGB was placed according to its technique and the patient remained hospitalized for 12-24 hours for observation for eventual post placement symptoms. Diet, exercise plan and a schedule of monthly visits were prescribed at discharge. We evaluated the mean weight loss after 6 months and complications were recorded as immediate (<7days) and mediate (> 7days). Ethics: the protocol was approved by the local IRB. Statistical analysis: VCCstat 2.0. package; 95%CI were calculated; ANOVA test. **Results.** We evaluated 154 patients, 23 required IGB early removal. Finally 94 patients were analyzed. 72% (68/94) were women, mean age 42,25±11,5 years, with no difference between genders, mean BMI: 37.22±4.85 kg/m2 (range 29.03 to 58,11). The balloon was inserted for a median time of 208,50±30 days (range 162 to 333). Comorbidities were registered in 48% (45/94). 1. According to diet and exercise compliance the sample was stratified into five groups: Compliance to diet (G1), to exercise (G2), to both measures (G3), no compliance to both measures (G4), no nutritional monitoring at our institution (G5). The weight loss average in each group is detailed in the table 1. Immediate complications occurred in 44% patients (95%CI 34-55; 42/94), and were registered as follows: vomiting 53% (n:22), nausea 27% (n:11), epigastric pain 14% (n:6). Mediate complications were recorded in 2.1% patients (95%CI 0,3-7,5; 2/94). **Conclusions.** The weight loss varied according to treatment compliance. Patients who were compliant to diet and exercise lost more weight than the other groups. Early complications were more frequent.

Table. Weight loss average according to diet and exercise compliance

	n (%)	Weight loss kg (Mean ± DS)	Min (kg)	Max (kg)	*P*
G1	9 (9,6)	13,97 ± 5,30	5,31	22,60	ns
G2	7 (7,4)	10,79 ± 2,87	2,87	15,50	ns
G3	16 (17)	15,83 ± 3,20	3,20	21	< 0,05
G4	8 (8,5)	10,46 ± 2,54	3,55	13,20	< 0,05
G5	54 (57)	11,01 ± 4,64	4,65	18,50	

UTILITY OF ENDOSCOPIC TREATMENT FOR GASTROJEJUNAL ANASTOMOTIC STENOSIS IN LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS

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Introduction. Obesity is one of the most prevalent metabolic disorders in western populations. The failure of long-term medical treatment is usually frustrating for the patient and for the physician. The Roux-en-Y gastric bypass (RYGB) is one of the bariatric procedures that offers better results. The gastrojejunal (GJ) anastomotic stricture is a common complication (4.73 to 27%) that may occur months to years after the surgery. Endoscopic hydrostatic balloon dilation is an effective intervention with a high success rate in symptoms resolution. **Objective.** To evaluate the utility of endoscopic hydrostatic balloon dilation in symptomatic GJ anastomotic stricture. **Materials and methods.** Adult patients with persistent food intolerance were included consecutively. The study took place in a gastroenterology outpatient clinic, between April, 2004 and March, 2012. Design: descriptive, retrospective and longitudinal study. Anastomotic stenosis <12 mm required dilation. The procedures were performed with a CRE balloon. Utility of the procedure was reported with symptoms resolution regardless of the number of dilations. Patients were stratified according to the number of procedures. Statistical analysis: VCCstat 2.0; 95%CI were calculated. **Results.** 5066 patients underwent RYGB. GJ anastomotic stricture was diagnosed in 304 (6%) patients. Food intolerance was reported between 8 and 1218 days postoperatively (mean 90.22 days). The resolution of the symptoms was achieved in 303 patients (99.67%; 95%CI 98-1). Total dilations were 557; the majority required only one procedure (64.14%) (table 1) and dilation requirement ranged from 1-13 per patient (mean 1.8). The average of balloon diameter used was 12.40 mm (range 6 - 20 mm). Complications were registered as follows: perforation 1,3% (95%CI 0,4-3.3; n: 4) and hematoma of the stoma 0. 7% (95%CI 0,1- 2,4; n:2). **Conclusion.** Endoscopic balloon dilation is a useful therapy for GJ anastomotic stenosis after laparoscopic Roux-en-Y gastric bypass with very few complications.

Table. Dilation requirements

Number of dilatations	n (patients)	%
1	195	64
2	58	19
3	21	6
≥ 4	30	11
Total	304	100

HISTOLOGICAL DIAGNOSIS OF DIMINUTIVE RECTOSIGMOID POLYPS: A SUPPORT FOR "PREDICT, RESECT AND DISCARD" DIMINUTIVE POLYPS

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Introduction. The American Society for Gastrointestinal Endoscopy has proposed two policies for handling diminutive rectosigmoid polyps known as "predict, resect and discard" and "predict and leave in". These strategies were proposed as cost-effective supported on a complex interaction among the accuracy of advanced endoscopic imaging in differentiating between adenomatous and hyperplastic lesions, the prevalence of (advanced) neoplasia within diminutive lesions, and the type of surveillance intervals recommended. **Objectives.** 1. To estimate the prevalence of diminutive rectosigmoid polyps. 2. To compare the prevalence of advanced neoplasia in diminutive rectosigmoid polyps (≤ 5 mm) and in 6 -9 mm polyps. **Materials and methods.** Adults who performed videocolonoscopies (VCC) were included consecutively between June 2012 and June 2013 in a gastroenterology outpatient clinic. Insufficient rectosigmoid colon preparation and no histological examination of polyps were exclusion criteria. Design: descriptive, retrospective and cross sectional study. Procedures: VCCs were performed under sedation, with Olympus equipment and by trained operators. Cleansing was performed with polyethylene glycol, phosphates, with or without bisacodyl. Excision of lesions was performed according to standard practice. Size, location and morphology were registered. According to the size, polyps were stratified into two groups: G1 (≤ 5 mm) and G2 (6-9mm). The biopsies were evaluated by experienced pathologists. The Vienna classification was used and advanced neoplasia was considered in the presence of high-grade dysplasia (HGD), cancer or villous histology. Ethics: patients signed informed consents before the procedure. Statistical analysis: VCCstat 2.0. Chi-square test. **Results.** 13812 VCC reports were reviewed; 406 patients were excluded and 13406 were analyzed. 56.5% were women, mean age: 57.94 ± 12.59 years. 1. The prevalence of diminutive rectosigmoid was 5.9% (95%CI 5.5 - 6,3) and in G2 it was 7.2% (95%CI 6.8-7.7). Total of recorded polyps was 2393: G1: 1047 and G2: 1346. Histological diagnoses are described in tables 1 and 2, respectively. 2. a) The prevalence of advanced neoplasia in G1 was 0.5% (95%CI 0.1 - 1, 3) and in G2: 1.4% (95%IC 0.8 -2.5). This difference was statistically significant (P = 0,04). No differences between genders or individuals <and ≥ 50 years in both groups were found (P = ns). **Conclusions.** In lesions ≤ 5 mm hyperplastic polyps are more prevalent than adenomas, however in polyps 6-9 mm this relationship was reversed. The prevalence of advanced neoplasia was lower in polyps≤ 5mm, consistent with data reported in the literature. This would have an important implication for potential practice "predict, resect and discard" diminutive polyps.

Table. Histological diagnosis of diminutive rectosigmoid polyps.

Histology		n	95% CI
Hyperplastic		531	50,7 (47,6 - 53,7)
Adenomas	Tubular - HGD	443-2	42,3 (39,3)
	Tubulo villous - HGD	10-1	1 (0,5 - 1,81)
	Serrated	19	1,81 (1,12 - 2,87)
Other	Inflammatory changes	44	4,3 (3,10 - 5,64)
Total		1047	

Table. Histological diagnosis of polyps 6-9 mm.

Histology		n	95% CI
Hyperplastic		446	33,13 (30,6 - 35,7)
Adenomas	Tubular - HGD	670-8	49,8 (47,1 - 52,5)
	Tubulo villous - HGD	58-2	4,30 (3,31 - 5,57)
	Serrated	92	6,83 (5,57 - 8,35)
	Adenocarcinoma	8	0,6 (0,3 - 1,2)
Other	Inflammatory changes	72	5,3 (4,2-6,7)
Total		1346	

PREVALENCE OF SERRATED ADENOMAS: EXPERIENCE IN A LARGE VOLUME CENTRE IN ARGENTINA

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Introduction. Serrated adenomas (SA) evolve to Colorectal Cancer (CRC) in 15-20% through the serrated pathway. The prevalence is variable (0.8 to 13%) because some lesions are unseen even in case of experienced endoscopists. **Objectives.** 1. To estimate the prevalence of SA. 2. To describe their endoscopic and histological characteristics. **Materials and methods.** Adults≥ 18 years who performed videocolonoscopy (VCC) were included consecutively. Anticoagulation, incomplete studies, insufficient colon cleaning (Boston scale <6), high risk for CRC except for Inflammatory Bowel Disease were exclusion criteria. The study was conducted in an outpatient gastroenterology clinic between November, 2012 and April, 2013. Design: descriptive, prospective and cross sectional study. The VCC were performed under sedation with Olympus equipment and by trained operators. Colon cleansing was done with polyethylene glycol or phosphates, with / without bisacodyl. The lesions were resected according to current practice. Histological evaluation was performed according to the World Health Organization criteria including Sessile Serrated Adenomas (P/ SSA), the P/ SSA with dysplasia and Traditional Serrated Adenomas (TSA). Age, gender and risk factors for CRC were evaluated as confounding variables. Ethics: The protocol was approved by the local IRB. Statistical analysis: VCCstat 2.0. package, 95%CI; Chi square test. **Results.** We reviewed 3052 VCC; 316 were excluded and 2736 were analyzed. 58% (1584/2736) were female, mean age: 56 ± 12.6 years (range 20-93). According to CRC risk, 4 groups were established: No risk: 18.45%, average: 58.9%, moderate: 21.8%, and high: 0.85%. 73% had no lesions. 100 polyps were recorded in 75 patients. No differences were observed between ≥50 and <50 years and between genders (P = ns). A higher prevalence of SA was observed in patients with moderate risk (P = 0.0048) and there was a tendency that these lesions were more prevalent at average risk group (P = 0.0684) 1. The prevalence of SA was 2.7% (95%CI 2.2-3.4). 2. Most prevalent endoscopic features are detailed in the table. P/SSA were prevalent in 87% (95%CI 78-92) followed by P/SSA with dysplasia 13% (95%CI 7-21); all these latter lesions had Low Grade Dysplasia. **Conclusions.** In this sample, the prevalence of SA was low and SSA without dysplasia were predominant. Most of these lesions, regardless the dysplasia, were similar in size and morphology but differed in the location; P/SSA were more prevalent in recto sigmoid, followed by proximal colon and transverse, and P/SSA with dysplasia were more prevalent in transverse followed by proximal colon and rectosigmoid. This data should warn endoscopists to emphasize the importance of colonic cleansing and rigorous evaluation of right and transverse colon.

Table. Predominant endoscopic and histologic features of SA.

Histological and endoscopic features		n	P/SSA (n: 87) 95% CI	n	P/SSA whit dysplasia (n: 87) 95% CI
Size (mm)	6-9	50	57,5 (46-67)	9	69,2 (38-90)
Morphology	Is	50	57,5 (46-67)	8	61,5 (31-86)
Location	Transverse	-	-	6	46,2 (19-74)
	Recto sigmoid	32	36,8 (27-48)	-	-

TRANSFUSION REQUIREMENT BEFORE ARGON PLASMA COAGULATION FOR GASTRIC ANTRAL VASCULAR ECTASIA MIGHT BE ASSOCIATED WITH RELAPSE RATE

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Introduction. Gastric antral vascular ectasia (GAVE) is a rare cause of upper gastrointestinal bleeding (UGIB). It usually presents as occult gastrointestinal bleeding. A proportion of these patients have associated comorbidities, mainly liver and heart valve disease. Argon plasma coagulation (APC) is one of the most effective treatments, but long-term relapse rate has not been fully established. **Objectives.** The primary objective was to determine long-term relapse rate. Secondary objective was to identify factors associated with relapse. **Methods.** Retrospective cohort study based on electronic medical records (EMR), Patients with endoscopic diagnosis of GAVE between January 2004 and May 2013, with a minimum of 6 months of follow-up, were included. Number of APC sessions, hemoglobin (Hb) levels, and transfusion requirements before and after APC sessions were analyzed. Relapses were defined as melena, hematemesis and/or anemia that led to subsequent APC treatment while other causes of GIB were ruled out. Quantitative variables were described as median with IQ ranges, and categorical variables as ranges with 95% confidence intervals. We used Chi-squared test to compare categorical variables. **Results.** Twenty two cases of GAVE were identified. Thirteen fulfilled the required follow-up period. Nine patients (69%) needed transfusions before APC treatment. In the short term (3-6 months), Hb levels improved in all patients with a median increase of 4 g (IQR: 1.5-5). Six patients (46%) relapsed. The median relapse-free period was 54 months (IQR 46-62, 95% CI). The median number of APC sessions was 2 (IQR 1-2). Relapse was found in 6 patients that received pre-APC treatment transfusions whereas none of the patients who did not receive transfusions relapsed (P = 0.026). **Conclusion.** APC is an effective treatment in the short term. However, long-term relapses were common. Relapse was seen only in patients that received pre-APC treatment transfusions. Further studies are required to confirm these findings.

RECTAL BLEEDING: SHOULD COLONOSCOPY BE DONE IN PATIENTS YOUNGER THAN 50?

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Introduction. The optimal strategy for evaluating young patients with rectal bleeding is still not clear. Guidelines and practices differ regarding evaluation of these patients. The purpose of this study was to assess the prevalence and site of clinically significant lesions in patients younger than 50 with rectal bleeding and, therefore, determine whether full colonoscopy would be necessary in these patients. **Methods.** We performed a cross sectional study of subjects between 18 and 49 years undergoing outpatient full colonoscopy for rectal bleeding at tertiary medical center in Buenos Aires, Argentina, between January 2006 and June 2013. Patient's data were collected from electronic medical records. Rectal bleeding was defined as bright red blood from the rectum; red blood noted either in the feces, on toilet paper, or in the toilet bowl. Lesions were characterized as proximal or distal to the splenic flexure. Patients were excluded if they had: positive personal history of colorectal carcinoma (CRC) or inflammatory bowel disease (IBD), positive first degree family history of colorectal neoplasms, presence of iron deficiency anemia, bleeding diathesis or bleeding requiring blood transfusion. Neoplastic polyps, CRC and IBD were defined as significant lesions. **Results.** We included a total of 592 patients (292 male) with a median age of 40, intercuartile range (IQR) 20-49. The prevalence of significant lesions were: CRC 2.4% (14), IBD 2% (12) and adenomatous polyps 16.6% (97) (43 of which were advanced adenomas, with a global prevalence of 7.2%). The most common finding was Hemorrhoids occurring in 53.4% of the patients (316) (Table 1). CRC and adenomatous polyps were more frequently found distal to the splenic flexure; CRC 92.9% (13) vs. 7.1 % (1) (P = 0.04; OR, 5; 95%CI 1-32) and adenomatous polyps 64.9% (63) vs. 35.1% (34) (P = 0.2; OR, 1.2; 95%CI 1-1.5). Advanced adenomas were also more prevalent distal to the splenic flexure; 79.1% (34) vs. 20.9% (9) (P = 0.06; OR, 1.8; 95%CI 1-3.3). IBD was most likely to be diagnosed in patients younger than 40 years, 83.3% (10) vs. 16.3% (2) (P = 0.003; OR, 3.6; 95%CI 1.1-12.8). CRC was more frequent over 40; 72% (10) vs. 28% (4) (P = 0.6; OR, 1.3; 95%CI, 0.8-2.9), as well as adenomatous polyps who were also more common in this age group; 70.4% (69) vs. 29.6% (28) (P = 0.0.2; OR, 1.8; 95%CI: 1.1-2.9). **Conclusion.** We found a high prevalence of significant lesions (20.8%), especially adenomatous polyps and CRC, who combined for 18.8% (16.4% and 2.4% respectively). These lesions were more common in patients older than 40 years, mainly distal to the splenic flexure. This would suggest that these lesions could have been diagnosed by a sigmoidoscopy. Despite this and given the high prevalence of adenomatous polyps and CRC found in patients over 40, is that we believe that colonoscopy should be recommended in this age group.

Table 1. Lesions found on colonoscopy

Findings / Age	Under 40 n (%)	Over 40 n (%)	Total n (%)
CRC	4 (0,7%)	10 (1,7%)	14 (2,4%)
Adenomatoys polyps	28 (4,9%)	69 (11,7%)	97 (16,6%)
IBD	10 (1,7%)	2 (0,3%)	12 (2%)
Hemorrhoids	120 (20,3%)	196 (33,1%)	316 (53,4%)
Anal Fissure	15 (2,5%)	26 (4,4%)	41 (6,9%)
Diverticulosis	11 (1,8%)	34 (5,8%)	45 (7,6%)
Normal	45 (7,6%)	59 (10%)	104 (17,6%)

ADENOMA RISK IN OBESE PATIENTS

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Background. Several authors have assessed the link between obesity and colon adenoma risk. Moreover, it has been reported that obesity could increase the risk of proximal adenoma development, suggesting that obese patients may have a distinctive pattern of adenoma recurrence. **Aim.** To determine whether metachronous adenoma features differ between obese and non-obese patients submitted to colonoscopy surveillance. **Materials and methods.** We prospectively evaluated all patients over 18 years old that underwent surveillance colonoscopy at our institution between August 2012 and October 2013. Date of prior colonoscopy was registered. A Body Mass Index ≥30 was used to define obesity. Analysis looking for variables significantly associated with metachronous adenoma was performed. Metachronous adenoma rate was compared between obese and non-obese subjects, as well as size, location, morphological and histopathological characteristics. **Results.** Overall, 625 subjects were enrolled. Thirty percent of subjects had a history of at least one advanced adenoma. Global median time of surveillance colonoscopy was 30.9 months. Obesity was statistically more frequent in those subjects with metachronous adenomas (35.89% vs 23.63%, p 0.03). On multivariate analysis, obesity [OR 1.7 (1.01-2.9)] and age [OR 1.02 (1-1.05)] were independently associated with metachronous adenoma. Obesity was also significantly associated with a higher risk of right colon adenomas [OR 1.7 (1.1-2.5)] and advanced adenoma [OR 1.65 (1.01-2.8)]. This risk is significantly higher in men and in those with a family history of colorectal cancer/adenoma. **Conclusion.** Obesity was associated with a higher risk of metachronous adenomas on surveillance colonoscopy. A higher risk of right-sided lesions and advanced adenomas was also found in obese population.

PREVALENCE OF AND RISK FACTORS FOR METACHRONOUS COLONIC NEOPLASIA AMONG PATIENTS WITH SESSILE SERRATED ADENOMAS UNDERGOING SURVEILLANCE COLONOSCOPY (SSA)

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Introduction. Sessile serrated adenomas (SSA) may represent a separate and important pathway for colorectal cancer (CRC). The prevalence of, and the risk factors for, metachronous neoplasia in patients with SSAs has not been established. **Objetive.** To determine the prevalence of, and risk factors for, metachronous neoplasia among patients with SSA. **Methods.** This was a single-site retrospective study of patients with index SSA (diagnosed from January 2007 to December 2010) who underwent colonoscopy surveillance for a period of at least 3 years. SSA diagnosis was performed by two gastrointestinal pathologists according to Snover's criteria. Metachronous lesions were defined as the presence of SSA, conventional adenomas, advanced neoplastic lesions (ANL) (>75% villous component, high grade dysplasia or size>10mm) or cancer occurring at least12 months later than the index colonoscopy. Patients demographics and colonoscopy baseline characteristics were recorded. Chi squared and Fisher's test were used to investigate the association between index colonoscopy findings and those of surveillance colonoscopy. **Results.** Among 150 patients diagnosed with a SSA during this period, 75 underwent surveillance colonoscopies, with at least one study 3 or more years apart from the index one. Patients were mostly females (46/75 60%) with a media age of 58.2 years old (SD± 9). Most of the patients presented a satisfactory bowel preparation (good or excellent) in the index study (68/75 91%). The mean colonoscopy follow-up was 48 months (SD± 11) and the mean number of colonoscopies per patient was 3.12. The prevalence of SSA, conventional adenomas and ANL on surveillance colonoscopy was: 32/75(43%), 26/75(35%) and 10/75(13%) respectively. Mean time to first ANL was 34.6 months (SD± 11). We could not identify any risk factor for metachronous SSA. The presence of a SSA with cytological dysplasia (P = 0.04 OR 9,03 CI 1.03-16.03) and an ANL (P = 0.004 OR 7.03 CI 1.68-31.51), on index colonoscopy were risk factor for methachronous adenoma. Synchronic conventional adenoma (P = 0.02 OR 4.88 CI 1.05-26.9), and ANL (P = 0.0001 OR 19.3 CI 3.34- 127.5) on index colonoscopy were risk factors for metachronous ANL. **Conclusion.** Our data suggest that the presences of SSA with cytological dysplasia, synchronic conventional adenoma and ANL on index colonoscopy are risk factors for metachronous colonic neoplasia in patients with SSA. This finding may have important implications on colonoscopy surveillance guidelines.

INCREASED RISK OF ADVANCED SERRATED POLYPS AND COLORECTAL CANCER IN PATIENTS WITH SERRATED POLYPOSIS: AN OBSERVATIONAL CASE- CONTROL STUDY

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Introduction. Serrated polyposis syndrome (SPS) is a rare disease characterized by the presence of multiple serrated polyps in the colon. Small case series have suggested a high prevalence of colorectal cancer (CRC). The risk of colorectal neoplasia in these patients compared with those with sporadic sessile serrated adenomas (SSA) has not well evaluated. **Aim.** To compare the risk of advanced serrated polyps (ASP) and CRC in patients with SPS and SSA. **Methods.** Clinical records of patients who met the WHO diagnostic criteria for SPS between Aug 2007 and Oct 2013 were retrospectively analyzed. In order to perform a case-control study, patients with sporadic SSA were randomly selected during the same period. Patients with SPS were regarded as "cases" and patients with sporadic SSA as "controls". The risk of conventional adenomas, advanced neoplastic lesions (ANL: villous component ≥ 75%, size ≥ 10 mm, or high grade dysplasia), ASP (cytological high grade dysplasia or size ≥ 10 mm) and CRC was assessed. Univariate analysis was performed using Fisher's test for dichotomous variables. We considered results to be significant if the *P* value was < 0.05. **Results.** 120 patients were analyzed: 30 with SPS (cases) and 90 with sporadic SSA (controls). There were no significant differences regarding to: age at diagnosis [SPS (59.9 years; SD+10; range 36–78) vs. SSA (61 years; SD +12; range 30–89); *P* = 0.66)], female [SPS (63%) vs. SSA (54%); *P* = 0.42)] or BMI>25 [SPS (53%) vs. SSA (55%); *P* = 0.8)]. Smoking status [SPS (50%) vs. SSA (28%); *P* = 0.04, OR 2,6 CI 1,02-6,64], and first-grade CRC family history [SPS (23%) vs. SSA (8%); *P* = 0.04, OR 3,6 CI 1,01-13,04] were more frequent in patients with SPS. The presence of hyperplastic polyps (53% vs. 25%; *P* = 0.007, OR 3,2 CI 1,3-8,6) on index colonoscopy was also more frequent in patients with SPS, but we found no difference with respect to the presence of at least a traditional serrated adenoma (13% vs. 3%; *P* : 0.06), conventional adenoma (43% vs. 38%; *P* = 0.6) or ANL (17% vs. 9%; *P* = 0.3). The risk of SSA ≥ 10 mm (73% vs. 19%; *P* = 0.000, OR 11,81 CI 4,1-35,1), SSA with cytological high grade dysplasia (13% vs. 2%; P = 0.03, OR 6,77 CI Inf-56,96), ASP (7% vs. 22%; *P* = 0.000, OR 9,62 CI 3,41-28) and CRC (10% vs. 1.1%; *P* = 0.048, OR 9,89 CI Inf-258) was higher in patients with SPS than in sporadic SSA subjects. Colectomy was also more frequently performed in patients with SPS (23% Vs. 3%; *P* = 0.002, OR 8,83 CI 1,84-47,4). **Conclusion.** We found a higher risk of advanced serrated polyps and CRC in patients with SPS. Our data suggest the need for better detection of serrated lesions and awareness of SPS in screening programs.

RISK OF METACHRONOUS ADVANCED NEOPLASTIC LESIONS IN PATIENTS WITH SESSILE SERRATED ADENOMAS UNDERGOING SURVEILLANCE COLONOSCOPY

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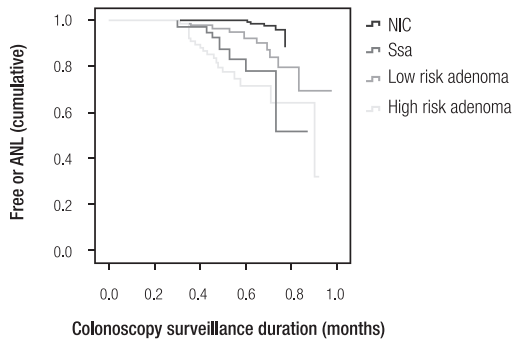
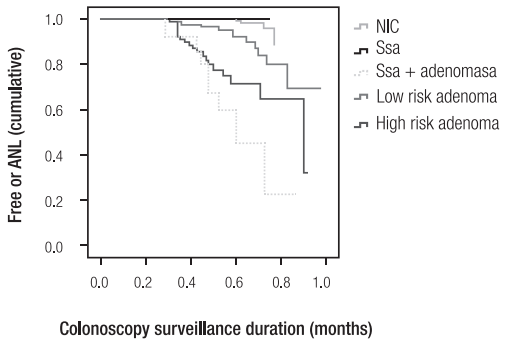
Introduction. Although sessile serrated adenomas (SSAs) may represent a separate and important pathway for colorectal cancer. The risk of methacronous colonic neoplastic lesions, in patients with SSA undergoing surveillance colonoscopy, is not well quantified. **Objective.** To compare the risk of metachronous advanced neoplastic lesions during colonoscopy surveillance in patients with SSA, high and low risk conventional adenomas, and negative colonoscopy. **Methods.** This was a single-site retrospective study of patients with index SSA, low risk adenomas (LRA), high risk adenomas (HRA); and negative index colonoscopy (NIC) (from January 2007 to December 2008), who underwent colonoscopy surveillance for a period of at least 3 years. SSA diagnosis was performed by two blinded gastrointestinal pathologist according to Snover criteria. HRA were defined as an advanced neoplastic lesion (ANL) (>75% villous histology, high grade dysplasia or size >1 cm) or ≥ 3 non-advanced neoplastic lesions. Metachronous ANL was considered when occurring 12 month after index colonoscopy. Continuous variables were compared using one-way analysis of variance (ANOVA) and Kruskal Wallis. Kapplan-Meier curves and logrank test were used to evaluate time to first ANL during colonoscopy surveillance. **Results.** Among 639 included patients, index colonoscopy finding were: 75 SSA, 140 LRA, 87 HRA and 337 NIC. Patients with SSA and NIC were younger than patients with LRA and HRA: mean age (±SD) 56 (10), 59 (8), 64 (11) and 65 (9) (*P* <0.01). The mean colonoscopy follow-up was longer in patients with NIC and LRA than SSA and HRA, months (±SD): 63 (10), 56 (17), 47 (14), and 52 (17). The number of surveillance colonoscopies per patient was lower in patients with NIC (*P* < 0.001). There were no differences between groups regarding to: gender, number of surveillance colonoscopies per patient and satisfactory bowel preparation on index colonoscopy (*P* > 0.4). The prevalence of metachronous ANL in patients with SSA, LRA, HRA and NIC was: 12%, 8.5%, 22% and 1.5 respectively (logrank test *P* < 0.01) (Figure 1). Time to first metachronous ANL during colonoscopy surveillance in patients with SSA, LRA, HRA, and NIC was: months (±SD) 47 (13), 55 (17), 50 (14) and 63 (10) (logrank test *P* < 0.01). Presence of synchronic conventional adenoma in patients with index SSA was associated with the highest prevalence of metachronic ANL during surveillance (34.6%) (logrank test *P* < 0.01). None of the patients with index SSA without synchronic adenoma presented a metachronous ANL during surveillance (Figure 2). **Conclusion.** Patients with SSA have an increased risk of presenting metachronous ANL during colonoscopy surveillance. This risk seems to be higher than with LRA but lower than with HRA. The SSA risk of developing metachronic ANL seems to be influenced by presence of synchronic adenomas on index colonoscopy.





DERIVATION OF A ENDOSCOPIC PREDICTION SCORE FOR SESSILE SERRATED ADENOMAS DURING CONVENTIONAL COLONOSCOPY

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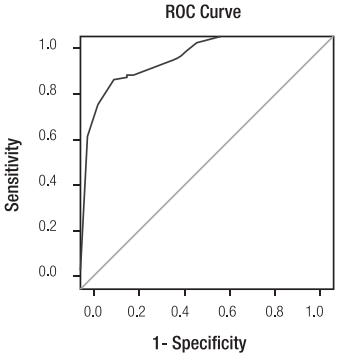
Background. Proximal colorectal cancer (CRC) may arise from sessile serrated adenomas (SSA). Identification of these lesions during colonoscopy has important implications on CRC screening programs. **Aim.** To develop a simple endoscopic score to reliably identify SSA during conventional colonoscopy. **Methods.** Patients undergoing screening or surveillance colonoscopies from January 2011 to September 2013, in whom colorectal mucosal lesions were found and their histology was available, were included in our study. A clinical prediction rule was developed. Based on existing literature and previous information on this matter, endoscopic features were prospectively assessed. All analyzed variables with a p < 0.05 in univariate analysis were entered into the model. Backwards stepwise logistic regression was used to identify factors that predict SSA. Calibration of the model was evaluated with Hosmer-Lemeshow test and the discrimination power with area under the ROC curve. The identified factors, and others considered biologically important by the investigators, were used to develop a clinical prediction rule. **Results.** A total of 493 patients were included, and 810 polyps were evaluated (1.6 polyps per patient). Patients were mostly men (262/493, 53%) and the median age was 62 years old (25th-75th quartiles: 55-69). Histology revealed that 90 polyps (11%) were SSA, 230 (28%) hyperplastic, 17 (2,5%) traditional serrated adenoma, 456 (56%) conventional adenomas and 17 (2,5%) pseudopolyps. A total of 5 independent endoscopic predictors for SSA were identified in the multivariate analysis: right-side location (OR 9.67 CI 916-22.48, *P* < 0.001), red colored surface (OR 2.31 CI 1.03-5.20, P = 0.042), mucus cap (OR 2.52 CI 1.12-5.67, *P* = 0.026) type II Kudo pit pattern (OR 8.52 CI 3.13-23.18, *P* = 0.001), size > 5 mm (OR 12.10 CI 2.79-52.39, *P* = 0.001). Even thought flat morphology was not an independent predictor for SSA on multivariate analysis (OR 1.31 CI 0.69-2.46, *P* = 0.4) was also included on the model due to its clinical relevance. The area under the ROC curve was 0.92. (Figure 1) A diagnostic threshold score > or = 6 presented a sensitivity of 100% (CI 88% -100 %), specificity: 63% (CI 46%-78%), positive predictive value: 73% (CI 58%-84%) and negative predictive value: 100% (CI 83%-100%), and % correctly classified 81.33%. A diagnostic threshold score > or = 4 presented a Sensitivity of 100% (CI 60% -100 %), specificity: 38% (CI 26%-50%), a positive predictive value: 17% (CI 8%-31%), negative predictive value: 100% (CI 83%-100%), and % correctly classified 44,44%. **Conclusion.** A simple endoscopic score can accurately discriminate SSA during conventional colonoscopy. Recognition of these lesions during colonoscopy can optimize the endoscopic approach. An external validation of this model is still required.

Figura 1. The ROC of endoscopic prediction score for sessile serratedadenomas during conventional colonscopy.



SURVEILLANCE INTERVAL AFTER A NORMAL SCREENING COLONOSCOPY: IS IT REALLY TEN YEARS?

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Background. Current guidelines suggest that the appropriate surveillance interval after a normal screening colonoscopy is ten years. Nevertheless the risk of colonic neoplastic lesions between five and ten years after screening colonoscopy has not been thoroughly evaluated. **Aim.** To determine the prevalence of and risk factors for colonic neoplastic lesions in patients with negative baseline screening colonoscopy who returned between five and ten years later for follow-up colonoscopy. **Methods.** Clinical records of patients undergoing screening colonoscopy between 2004 and 2007 were obtained from our electronic database. Patients without adenomas at baseline colonoscopy who returned between 5 to 10 years later for follow-up colonoscopy were finally included. Patient demographics and baseline characteristics were registered. The main outcome measure was the prevalence of adenomas, advanced neoplastic lesions (ANL) (>75% villous component, size >1cm or high grade dysplasia) or cancer on surveillance colonoscopy. Categorical and continuous variables were evaluated with chi square and Student T test. A multivariate logistic regression analysis was performed to identify risk factors for presenting colonic neoplastic lesions during the mentioned period. A *P* value < 0.05 was considered statistically significant. **Results.** Among 1990 patients with no adenomas in baseline screening colonoscopy, 450 were rescreened in a period between 5 and 10 years after the baseline study. Patients were predominantly women (59%) and the mean age at baseline colonoscopy was 56 years old (44- 80). Seventy one percent (CI 66-85) of patients achieved a satisfactory colonic preparation on baseline colonoscopy. Mean colonoscopy follow up was 69 months (50-103). The mean number of colonoscopies per patient was 2.1 (2-4). The prevalence of adenomas, ANL and cancer was 70/455 (15%), 11/455 (2%) and 0/455 (0%) respectively. Older age (>65 years old) (*P* = 0,009 OR 2,23 CI 1,20-4,13), male gender (*P* = 0,001 OR 2,54 CI 1,46-4,42) and fair colonic preparation on baseline colonoscopy (*P* = 0,039 OR 1,80 CI 1,03-3,15) were independent risk factors for presenting adenomas during surveillance. We did not find any independent predictors of ANL or cancer. **Conclusions.** We found a low prevalence of ANL between 5 and 10 years after an initial negative screening colonoscopy in our population. This findings support the current screening guidelines, but nevertheless male patients, those beginning screening at older age or with suboptimal preparation on baseline colonoscopy could be at greater risk of metachronous adenomas.

ASSESSING QUALITY INDICATORS IN SCREENING COLONOSCOPY: DOES THE ENDOSCOPIST SPECIALTY AND TECHNIQUE CARE?

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Background. Introduction. Colonoscopy is the gold standard for colorectal cancer (CRC) screening and success depends on colonoscopy quality. Many factors influence on quality and outcomes in colonoscopy. The relationship between endoscopist specialty and different techniques with colonoscopy quality has not been examined. **Objective.** To compare quality indicators in screening colonoscopy carried out by different endoscopist specialty and by using different techniques. **Methods.** Single center observational retrospective study was performed. Screening colonoscopy and histopathology reports were analyzed from June 2012 to July 2013. Patients (age, gender and bowel preparation) and colonoscopy characteristics (cecal and terminal ileal intubation, adenoma detection rate [ADR], adenoma per colonoscopy [APC], sessile serrated adenoma [SSA] detection rate, complete colonoscopy report and complications) were gathered. The process of assessing quality indicators was stratified by: 1) endoscopist specialty (gastroenterologist vs. colorectal surgeons) and 2) endoscopy technique (one-operator vs. two). Chi Square test and T Student test were used to compare categorical and continuous variables. Risk was measured in odds ratio (OR) and its corresponding confidence intervals 95% (CI). A *P* value ≤ 0.05 was considered statistically significant. **Results.** A total of 1245 patients were included. The median age was 60 (32-87) years and 49% were men. Five hundred and fifty six colonoscopies were performed by 3 gastroenterologists and 689 by 4 colorectal surgeons. One operator technique was carried out in 556 colonoscopies and two operator method in 579. Overall cecal intubation rate was 96%, terminal Ileal intubation was performed in 257/1245 (21%) colonoscopies, ADR was 19%; 21% in men and 16% in women (*P* = 0.01). Advanced neoplastic lesions (ANL) was detected in 51/1245 colonoscopies (4%). APC rate was 0.25 (0.20 in women and 0.28 in men). SSA detection rate was 3%. One patient (0.08%) had postpolypectomy bleeding. Colonoscopies performed by gastroenterologist achieved higher rates of cecal intubation (99% vs 94% *P* = 0.00 OR 6.10 IC 2.47-16.05), ileal intubation (36% vs. 9% *P* = 0.00 OR 5.91 IC 4.25- 8.23) and complete colonoscopy report (polyp size, localization, morphology and pit pattern) (58% vs 2%, *P* = 0.00 OR 69.81 IC 23.55-232.32). One operator technique had better performance regarding cecal intubation rate (99% vs. 93% *P* = 0.00 OR 6.98 IC 2.81-18.44) and ileal intubation rate (36% vs. 9% P = 0.00 OR 5.41 IC 3.84-7.62). There were no significant differences in ADR, APC and SSA detection rate between gastroenterologist and surgeons and between 1 operator technique vs. 2 (*P* > 0.05). **Conclusion.** Even thought our data suggest that endoscopist specialty and technique were associated with different colonoscopy qualitiy performance, there were no significant differences in ADR and SSA detection.