

Braintree Laboratories) patients followed a split dose regimen where they took one 6 ounce dose of OSS and water the evening before colonoscopy and a second dose the next morning at least 3 hours before their examination. Colonoscopies were performed by investigators blinded to treatment assignment. Overall cleansing was graded using a 4 point scale (1=poor; 2=fair; 3= good; 4=excellent) where scores of 3 or 4 were considered to be "successful". Residual stool and fluid were qualitatively assessed for each colon segment as "absent", "small", "moderate", or "excess".

**Results:** 130 patients, average age 57 years, took study preparation: 63 to OSS and 67 to PEG. Patients were more likely to complete OSS than PEG (100% vs. 91%;  $p=0.03$ ). 98.4% of OSS patients had successful preparations versus 89.6% for PEG ( $p=0.038$ ). 71.4% of OSS preparations were scored as "excellent" vs. 34.3% of PEG ( $p<0.001$ ). Substantial differences between the preparations for residual stool and fluid were also observed as shown in the table. There were no significant differences in safety or tolerability between the preparations.

**Conclusion:** Oral sulfate solution administered according to a split dose regimen provides superior cleansing to a standard 4L PEG and electrolyte preparation. OSS resulted in substantially reduced residual stool and fluid in most colon segments, particularly in the right colon.

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Percent patients with "absent" residual stool or fluid by colon segment

Colon segment	% Stool absent			% Fluid absent		
	OSS	PEG	P	OSS	PEG	P
Cecum	90.5	67.2	0.01	42.9	14.9	0.004
Ascending	90.5	68.7	0.02	63.5	35.8	<0.001
Transverse	92.1	82.1	0.64	68.3	49.3	0.005
Decending	92.1	83.6	0.76	66.7	38.8	0.013
Sigmoid/Rectum	93.7	80.6	0.17	63.5	47.8	0.28

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### Colonoscopic Findings in a True Screening Program for Colorectal Cancer (Without Previous Fecal Occult Blood Testing): The First 500 Procedures

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**Purpose:** Screening for colorectal cancer in average risk population was shown to decrease its incidence and mortality. However, best screening method in this setting has been under considerable debate. Here we present the first results of a colonoscopy-based pilot screening program for colorectal cancer in a north region of Portugal.

**Methods:** The first 500 subjects were screened between 2007 and 2008. The target population included asymptomatic average risk (without family history) population of men and women aged 50-74 years. Screening consisted of left colonoscopy or, whenever possible, complete colonoscopy (without previous fecal occult blood testing). Any polyps found were removed, and biopsies were performed whenever indicated.

**Results:** Screening was performed in 235 men and 265 women with a mean ( $\pm$ SD) age of  $59.2\pm 7.2$  years. Colonoscopy was complete in 378 subjects (76%). In 135 subjects (27%), 7 carcinomas, 32 high-risk adenomas, 56 low-risk adenomas, and 40 hyperplastic polyps were diagnosed. Lesion size was smaller than 10 mm in 81% of cases. Most detected lesions (64%) were located in the distal colon, followed by the proximal colon (19%) and both locations (17%). All carcinomas were located in the sigmoid. Advanced neoplasm was significantly associated with male gender. Among individuals with no distal polyps

(254 with no lesions on colonoscopy and 26 with proximal polyps only), the prevalence of advanced proximal neoplasms was 2%, increasing among patients with advanced distal neoplasms to 20%. When we analyzed the risk that an advanced proximal neoplasm would be detected based only on distal colon examination, we found that 50% of subjects had at least one adenoma and that the lesion was an advanced neoplasm in 40% of subjects.

**Conclusion:** The most common lesions detected in this colonoscopy-based pilot screening program were low-risk adenomas located in the distal colon. Even in asymptomatic average risk individuals, we found a prevalence of 27% of any type of lesion and 1.4% of colon cancer.

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### Prevalence and Risk Factors for Colonic Diverticulosis in the Average-Risk Lebanese Population Undergoing Screening Colonoscopy

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**Purpose:** Colonic diverticulosis is a relatively common condition. The prevalence is highest in "westernized" nations, where it has been reported to affect anywhere between 5% and 45% of the population, with the vast majority of diverticula being left-sided. The prevalence in Africa and Asia is much lower, where it is found in less than 0.2% of the population, with a predominance of right-sided diverticulosis. Although the exact risk factors for colonic diverticulosis are unknown, studies have suggested that chronic constipation and a low fiber diet may be predisposing factors. Given the overall asymptomatic nature of colonic diverticulosis, it is difficult to obtain an accurate incidence of the condition and its associated risk factors. The aims of this study were to investigate the prevalence of colonic diverticular disease in the average-risk Lebanese population undergoing screening colonoscopy and to identify possible associated risk factors.

**Methods:** Consecutive asymptomatic Lebanese aged  $\geq 50$  undergoing screening colonoscopy were included in the study. Demographic characteristics and information about smoking, caffeine intake, exercise, dietary habits, and long-term use of NSAIDs, calcium, and multivitamins/antioxidants was collected. The presence or absence of diverticula and their location in the colon was noted for each patient.

**Results:** To date, 500 patients (mean age =  $61.2\pm 8.3$  years) have been included in the study. The overall prevalence of colonic diverticulosis was 30.5%, with almost equal distribution by gender (prevalence=31.2% in males and 29.8% in females). The diverticula were left-sided in 77.5% of patients, right-sided in 4.5% of patients, and diffuse (both left and right-sided) in 18.0% of patients. On multivariate analysis using backward stepwise logistic regression, alcohol consumption ( $p=0.001$ , OR=2.33 (1.39-3.89)), intake of vitamins/antioxidants ( $p=0.013$ , OR=1.90 (1.15-3.15)), increasing age ( $p=0.001$ , OR=1.73 (1.25-2.38)), and consumption of poultry ( $p=0.031$ , OR=1.49 (1.04-2.15)) were all significant risk factors for the development of colonic diverticulosis.

**Conclusion:** The prevalence and site distribution of colonic diverticulosis in the asymptomatic Lebanese population is commensurate with the numbers reported from "westernized" nations, with a relatively high prevalence of predominantly left-sided diverticulosis. As was found in most studies, there is a significant increase in the prevalence of colonic diverticula with increasing age. In addition, alcohol consumption, intake of vitamins/antioxidants, and consumption of poultry were found to be significant independent risk factors for the development of colonic diverticulosis.

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### Effects of Chronic Immunosuppression on Long Term Oncologic Outcomes for Colorectal Cancer Patients Undergoing Surgery

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**Purpose:** The effects of long term immunosuppression (IS) on long term oncologic outcomes for patients who undergo surgery for colorectal cancer are not known. We investigate whether IS affects these outcomes.