

BMI	Non-Complicated Course (n=47)	Complicated Course (n=29)	Odds Ratio (95% CI)	p-Value
Underweight/Normal	10	1	11.81 (1.40-99.7)	0.007
Obese	22	26		
Overweight	15	2	8.8 (1.82-43.07)	0.003
Obese	22	26		

M1255

Fecal Calprotectin in Diagnosis of Complicated Colonic Diverticular Disease
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Aim. The aim of this study was to assess the role of fecal calprotectin (FC) in diagnosis of complicated colonic diverticular disease (DD) and to compare it with uncomplicated colonic DD and matched controls. **Methods.** We studied 57 consecutive patients with a new endoscopic diagnosis of colonic diverticulosis (45 with asymptomatic uncomplicated DD, and 12 with acute diverticulitis) and 25 healthy controls. The level of FC was measured in every case by a semiquantitative test with three categories of results: type 1 (under 15 µg/g), type 2 (15-60 µg/g), and type 3 (more than 60 µg/g). The results were correlated with the degree of histological inflammation of colonic mucosa that was assessed by the degree of lymphocytic cell density. **Results.** We found higher FC values in acute uncomplicated diverticulitis (p<0.05) than in asymptomatic uncomplicated DD and in healthy controls. There were no differences between uncomplicated colonic DD and healthy controls. FC values increase according to the increase of lymphocytic cell density, showing a statistically significant correlation (p<0.05). Patients with acute diverticulitis were treated with antibiotics for 10 days; in these patients, reassessment of FC after three months revealed a significant decrease comparing with the initial level. **Conclusions.** FC may be useful to detect colonic inflammation in DD and in distinguishing acute diverticulitis from uncomplicated colonic DD and healthy controls. Also, FC may be useful for follow-up after treatment.

M1256

The Relationship Between Abdominal Fat Amount and the Diverticular Disease

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Purpose: Old age, low dietary fiber, congenital factor, obesity and lack of physical activity are known as risk factors for diverticular disease. In many studies, there were positive correlation between body mass index(BMI) and diverticular disease. But BMI has limitation to estimate the obesity, because it can't reflect the fat amount in body directly. And there has been no study about relationship between abdominal fat amount and the diverticular disease. The aim of this study was to examine the relationship between obesity(abdominal fat amount) and colon diverticular disease. **Methods:** The study was based on a retrospective case note review, and conducted at the Hanyang university hospital from January 2003 to December 2008. 133 patients were enrolled. They were divided into three groups(normal group, diverticulosis group and diverticulitis group). Abdominal fat area (total fat, visceral fat, subcutaneous fat) and BMI were measured. Abdominal fat area was quantified with abdominal CT image. Statistical analysis was performed by Independent t-test with significance set at P < 0.05. **Results:** 133 persons were enrolled. There were 63 female(47.4%) and 70 male(52.6%). 55 people(41.4%) were normal. 31 patients(23.3%) have simple diverticulosis. And diverticulitis patients were 47(35.3%). The mean age was 51.2±11.2 years. There was no significant difference between groups in age and sex. There was no significant difference in BMI(p=0.140) between normal and diverticulosis group. But Total fat area, subcutaneous fat area, and visceral fat area were higher in diverticulosis group, significantly(p=0.01, p=0.03, p=0.02). Visceral fat/subcutaneous fat ratio was higher in diverticulosis group but not significant(p=0.34) Between diverticulosis and diverticulitis groups, BMI, total fat area, subcutaneous fat area, and visceral fat area are significantly higher in the diverticulitis group. Visceral fat/subcutaneous fat ratio was higher in diverticulitis group but not significant(p=0.69) **Conclusion** Diverticulosis patients are more abundant in abdominal fat than normal or diverticulitis patients. BMI is not different significantly, between normal and diverticulosis patients.

M1257

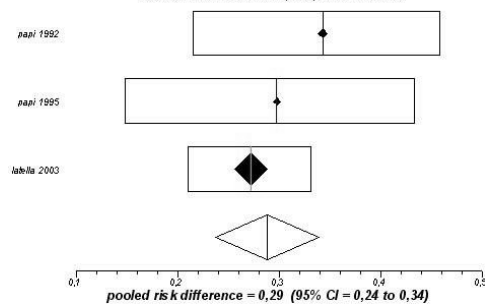
Rifaximin® Reduces Symptoms and Complications in Patients With Symptomatic Diverticular Disease (SDD): A Meta-Analysis

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Cyclic administration of poorly absorbed antibiotics such as R seems to be efficient in relieving symptoms in SDD, but evidence is not strong. Few data exists on prevention of its complications. To improve scientific evidence, we performed a review of the literature and a meta-analysis of randomized controlled trials (RCTs) on SDD. **Methods:** Pertinent studies were selected in main electronic databases and also by manual search using references from articles, guidelines and reviews. Conventional meta-analysis according to Der Simonian and Laird method was used for the pooling of the results (random effect). The Risk Difference (RD) at 95%CI and the number needed to treat (NNT) were used as measure of the therapeutic effect. Jhaddad score was applied to check the quality of RCTs **Results:** Six papers were identified. Four prospective randomized trials including 1660 patients were selected, to be introduced in the analysis. In all RCTs, R was administered cyclically plus dietary fiber supplementation. Controls were managed with dietary fibre supplementation alone. Follow-up data were available for 12-24 months in all 4 trials. Patients treated with R were more likely to be symptoms free than controls at the end of follow-up (RD=0,29; 95%CI= 0,24

to 0,34; p< 0,0001) with NNT=3 (see Fig. 1). Overall complications were less frequent in patients treated with R than controls because of the reduction of acute diverticulitis (RD=-0,02; 95%CI= -0,006 to -0,03 ; p= 0,006) with NNT=50. No heterogeneity was found. Jhaddad score resulted to be over 3 in all RCTs. **Conclusions:** Long term, cyclic administration of R in patients with SDD is effective in reducing symptoms at 1 year. As a secondary outcome, there is some evidence that R could reduce also complications. Costs to prevent one case of acute diverticulitis could be however high. The quality of RCTs was intermediate.

OUTCOME: Symptom free at the end of follow-up
Cochrane risk difference plot (random effects)



M1258

Effect of Appendectomy on Clinical Course of Diverticulosis

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Diverticulitis is a common condition where inflammation seems to play a key role in all forms of the disease. Since diverticular disease, in some cases, exhibits clinical and histopathologic similarities with the idiopathic inflammatory bowel disease, could have in common, with these some environmental risk factors, as appendectomy, that could interfere with the natural history of diverticular disease. Since the prevalence and the role of appendectomy in patients with colonic diverticula has not been defined, the aim of this study was to evaluate the prevalence of appendectomy, both in uncomplicated diverticular disease and in patients with diverticulitis. Two hundred and seven consecutive patients with verified diagnosis of diverticular disease of the colon were enrolled. Diagnosis of diverticulitis was defined by means of clinical, colonoscopic, and computerised tomography criteria. Logistic regression was used to describe the relation between the dependent variable (diverticulitis) and several covariates: sex, age (>60), BMI (>26), and history of appendectomy (emergency or elective appendectomy). We included the first order interactions in the model to assess the effect of each variable for a particular degree of the others covariates. Statistical analysis was performed using SPSS software. **Results:** The first order interactions did not show a relevant effect (p>0.10) and therefore were excluded from the logistic model. Sex (p=0.88), BMI (p=0.80), elective appendectomy (p=0.17), age (p=0.11), do not affect significantly, either as an independent variable or as a confounder, the risk of development of diverticulitis, and therefore were also excluded from the model. According to the final model the risk of diverticulitis is 4,94 fold higher (95% confidence interval: 1.98 to 12.37) in patients with history of appendectomy with emergency operative treatment, compared with patients without appendectomy or history of elective resection (p<0.001). **Conclusions:** The risk of diverticulitis does not increase in patients with elective appendectomy, therefore only patients with emergency appendectomy have an increased risk of diverticulitis.

M1259

Tumour Necrosis Factor-Alpha Expression in Segmental Colitis Associated With Diverticulosis is Related to the Severity of the Endoscopic Damage

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Background and Aim: Increased expression of Tumour Necrosis Factor-α (TNF-α) has been recently shown in Segmental Colitis Associated with Diverticulosis (SCAD). Our aim was to assess whether TNF-α expression in SCAD is related to the severity of the endoscopic damage. **Methods:** 19 consecutive patients affected by SCAD were studied (15 Males, 6 Females, mean age 58.87 years, range 43-85 years). Diagnosis of SCAD was based on a new endoscopic classification, which subdivided the endoscopic appearance as mild (patterns A), moderate (patterns B and C) and severe (pattern D)1. Inflammatory infiltrate was assessed by hematoxylin-eosin staining, and assessed by a previous validated score2. TNF-α expression was assessed by immuno-histochemistry on bioptic samples. **Results:** Six patients showed SCAD A pattern, 5 SCAD B pattern, 4 SCAD C pattern, and 4 SCAD D pattern. Inflammatory infiltrate showed a higher score in SCAD B (2.6) and SCAD D (2.7) than in SCAD A (1.2) and SCAD C (1.8). TNF-α expression was higher in SCAD B (42.7%) and in SCAD D (36.8%) than in SCAD A (19.1%) and SCAD C (21.1%). TNF-α expression was therefore significantly higher in severe endoscopic damage (D vs A, p=0.0017; D vs C, p=0.021), which found a TNF-α expression similar to that of SCAD B pattern (B vs A, p=0.0012; B vs C, p=0.029) No difference in TNF-α expression was found between the SCAD B vs D (p=0.417) and between SCAD A and C (p=0.175). **Conclusions:** We showed for the first time that TNF-α expression in SCAD seems to be related to the severity of the endoscopic damage. This behaviour, similar to that of the Inflammatory Bowel Disease (IBD), seems to be related to the degree of histological damage, and it confirms that this disease should be considered as a subtype of IBD. **References:** 1. Tursi A, Elisei W, Brandimarte G et al. The endoscopic spectrum of segmental colitis associated with diverticulosis. *Colorectal Dis* 2009 Jun 25 [Epub ahead of print] 2. Morson BC, Dawson IMP. *Gastro-intestinal pathology*, 2nd edn. Blackwell Scientific Publications, Oxford, 1979: 530-533