Title: Pharmacological Management of Diverticular Disease: A Monocentric Prospective Real-Life Study.

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Background and Aims: Symptomatic uncomplicated diverticular disease (SUDD) is a clinical manifestation of diverticular disease (DD) characterized by abdominal pain and altered bowel habits in the absence of local or systemic massive signs of inflammation[1]. Despite its high prevalence, the pharmacological management of SUDD remains challenging in clinical practice. This prospective, non-interventional monocentric study aimed to determine current pharmacological management for DD and to identify predictive factors for medication use.

Methods: Patients with endoscopic evidence of DD have been consecutively enrolled in this study. Demographic and clinical data, along with therapeutic regimens used in the previous 12 months, were collected and evaluated. Patients meeting Rome IV criteria for Irritable Bowel Syndrome (IBS) were excluded. Moreover, we proposed normative criteria for SUDD diagnosis. Descriptive analyses and multivariable logistic regression were performed to explore correlations between clinical-demographic features and pharmacological treatments.

Results: A total of 157 patients with endoscopic DD diagnosis were included; 16 were excluded due to concomitant IBS. Among the remaining 141 patients, 63 (44.7%) fulfilled the proposed SUDD criteria, while 78 (55.3%) were classified as asymptomatic diverticulosis or other DD. Multivariable analysis revealed that a SUDD diagnosis was the only independent predictor of rifaximin intake. Conversely, younger age, active smoking, and SUDD diagnosis were independent predictors of probiotic use.

Conclusions: Pharmacological treatment in DD varies according to clinical manifestation. Our study highlights that SUDD diagnosis strongly influences rifaximin use, while younger age and smoking habits are associated with probiotic intake.

Bibliography:

1. Calini, G. *et al.* Symptomatic Uncomplicated Diverticular Disease (SUDD): Practical Guidance and Challenges for Clinical Management. *Clinical and Experimental Gastroenterology* vol. 16 29–43 Preprint at https://doi.org/10.2147/CEG.S340929 (2023).

Table 1 – Univariate ad multivariate regression for probiotics intake identification

	Univariate Analysis		**Multivariate Analysis**	
	OR (IC 95%)	**p**	**OR (CI 95%)**	**p**
Age	0.96 (0.92-0.99)	**0.009**	0.96 (0.93-0.99)	**0.049**
BMI	0.98 (0.9-1.1)	0.643	-	-
Female Sex	1.56 (0.73-3.33)	0.206	-	-
Alcohol	0.56 (0.23-1.37)	0.206	-	-
Active smoking	1.5 (0.99-2.25)	**0.050**	1.63 (1.05-2.54)	**0.028**
Physical activity	1.5 (0.7-3.2)	0.300	-	**-**
Mesalazine	7.65 (1.42-41.31)	**0.018**	-	-
Rifaximin	33.9 (12-95.6)	**<0.001**	-	-
Prebiotics	8.74 (0.88-86.81)	0.064	-	-
Abdominal pain GSRS	1.38 (1.09-1.72)	**0.006**	-	-
Nausea GSRS	1.71 (1.14-2.58)	**0.010**	-	-
Diarrhea GSRS	1.38 (1.06-1.8)	**0.018**	-	-
Borborygmus GSRS	1.46 (1.06-2)	**0.019**	-	-
Bloating GSRS	1.32 (1.05-1.64)	**0.016**	-	-

Bristol stool ratings scale alterations	0.93 (0.7-1.23)	0.599	-	-
SUDD	3.86 (1.74-8.55)	**0.001**	3.46 (1.5-7.9)	**0.004**

Abbreviations: BMI: Body Mass Index; GSRS: Gastrointestinal Symptoms Rating Scale; SUDD: Symptomatic Uncomplicated Diverticular Disease.