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### SYSTEMATIC REVIEW WITH META-ANALYSIS: ASSOCIATION OF OBESITY AND IRRITABLE BOWEL SYNDROME

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**Background** While many studies have found an association between irritable bowel syndrome (IBS) and obesity, many others did not. Hence, this systematic review with meta-analysis aims to evaluate the relationship between obesity and IBS, and determine whether obesity correlates differently with the various IBS endotypes.

**Methods** A systematic review of published literature was conducted in concordance with the PRISMA guidelines and followed by a meta-analysis of relevant studies using the random-effects model. The 34 included studies assessed obesity among non-IBS controls and IBS subjects, either as continuous or dichotomous outcomes, using body mass index (BMI) and waist circumference (WC). The standardized mean difference (SMD) and 95% confidence interval (CI); and the odds ratio (OR) and 95% CI were obtained for continuous and dichotomous outcomes respectively. Meta-regression was performed to identify sources of heterogeneity.

**Results** We found a weak association between IBS and obesity, but this was not statistically significant. For BMI, the overall SMD was +0.227 (95% CI: -0.093 to 0.547,  $p = 0.164$ ) and OR was 1.312 (95% CI: 0.974 to 1.767,  $p = 0.074$ ). For WC, the overall SMD was +1.020 cm (95% CI: -1.768 to 3.807,  $p = 0.473$ ). However, subgroup analysis revealed significantly higher BMI among IBS-diarrhoea (IBS-D) subjects compared to controls (SMD = +1.940; 95% CI: 0.679 to 3.200,  $p = 0.003$ ) and significantly lower BMI among IBS-constipation (IBS-C) subjects compared to IBS-D subjects (SMD = -1.720; 95% CI: -2.489 to -0.950,  $p < 0.001$ ). Meta-regression identified age and gender as significant moderators contributing to heterogeneity.

**Conclusions** In conclusion, our systematic review with meta-analysis showed that obesity is positively associated with diarrhoea-predominant IBS, but not IBS in general. Our findings support the exploration of shared pathophysiology between IBS-D and obesity.

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### ASCITIC FLUID CHOLESTEROL IS A USEFUL MARKER TO RULE OUT MALIGNANT ASCITES

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**Background** Diagnosis of malignant ascites is a clinical challenge. The gold standard method for diagnosis is with cytology; however, it has low sensitivity, is observer-dependent, and may require repeated paracentesis. Recently, some studies showed that high ascitic fluid cholesterol level could be a

marker of malignant ascites and thus can differentiate between benign and malignant ascites. This study aimed to assess and evaluate the diagnostic accuracy of ascitic fluid cholesterol level in differentiating malignant from non-malignant ascites.

**Methods** We prospectively studied patients of ascites, who were admitted in from February 2019 to July 2019. Ascitic fluid cholesterol of all patients was sent along with cytology for malignant cells. Malignancy was proven by tissue diagnosis (peritoneal biopsy or EUS guided abdominal lymph node FNA or cytology of ascitic fluid). Patients with spontaneous bacterial peritonitis, tubercular ascites and pancreatic ascites were excluded.

**Results** A total of 50 patients of ascites were included in the study, and of these 11 patients had malignant ascites as proved by peritoneal biopsy or EUS guided abdominal lymph node biopsy or by ascitic fluid cytology. On taking a cut-off of 30 mg/dL of ascitic fluid cholesterol level, it was found that 9 of 11 patients (81%) of malignant ascites had high cholesterol values; however, only 8 of 39 patients (20.5%) of non-malignant ascites had high cholesterol values ( $p < 0.05$ ). The sensitivity, specificity, positive predictive value, negative predictive value, and accuracy of ascitic fluid cholesterol for diagnosing malignant ascites were 81.81%, 79.48%, 52.94%, 94%, and 80% respectively.

**Conclusions** Ascitic fluid cholesterol has high negative predictive value for ruling out malignancy-related ascites and thus can be used as an excellent biochemical investigation to rule out malignant ascites.

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### AN ANALYSIS OF ADVERSE EFFECTS OF THALIDOMIDE TREATMENT IN INFLAMMATORY BOWEL DISEASE WITH PERIPHERAL NEURITIS

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**Background** Thalidomide has been gradually recognized in the treatment of IBD because of its anti-angiogenesis and immunomodulatory effect. The safety and adverse reactions of thalidomide have also attracted considerable attention. This study aims to analyze the peripheral neuropathy associated with thalidomide in IBD and to provide guidance for safe use.

**Methods** We analyse 176 patients with IBD. They have suffered from peripheral neuritis due to thalidomide treatment. The peripheral nerve symptoms were evaluated, the electromyography was performed, and the dose-effect relationship of neurotoxicity was analyzed.

**Results** 70 patients had symmetrical numbness of hand or foot, of which 57 had abnormal electromyogram. 51.8% (55/106) of the patients without peripheral nerve symptoms still had abnormal electromyogram. Abnormal electromyogram usually occurred at 15 months in patients with clinical symptoms, which was significantly earlier than that in asymptomatic patients ( $15.4 \pm 16.36$  vs  $21.63 \pm 16.27$ ,  $P = 0.016$ ). In patients with an abnormal electromyogram, the daily dose was  $0.084 \pm 0.023$ , the cumulative use time was  $19.22 \pm 16.6$  months, and the cumulative dose was  $65.26 \pm 90.99$  g, while in patients with a normal electromyogram, the daily dose was  $0.080 \pm 0.021$  g, the cumulative use time was  $19.63 \pm 16.4$  months,