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Research Article

Irritable Bowel Syndrome New Etiologies Found

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Abstract:

Introduction: Irritable Bowel Syndrome is a chronic intestinal disorder characterized by various symptoms, and nowadays there is not an exact etiology known. Our aim is to search etiologies as: bacteria, parasites and/or fungi, in order to improve patients' quality of life and healthcare. It was studied with 454 clinical trials.

Materials and Methods: Patients´ feces were analyzed in the context of the medical diagnosis of IBS. The stools were processed for aerobes within 2 hours and anaerobes 1 hour after collection, while being maintained at body temperature.

Results: The investigation was done with 454 cases, looking up for different microorganisms. Most frequent etiologies were: Campylobacter jejuni 71.1%, Ascaris lumbricoides 43.6%, Candida albicans 26.2%.

Conclusions: This research shows the need to know the presence of etiologies, in order to reduce unnecessary hospitalization and empirical treatments. The ideal is a precise treatment for their etiologies and they had an improvement of 73.2%.

Keywords: enteropathogens; intestinal fungi; parasites; ibs, cyclospora

Introduction

Irritable Bowel Syndrome (IBS) is a chronic intestinal disorder characterized by symptoms, as abdominal pain, bloating, inflammation, irritation, changes in stool form, constipation and/or diarrhea. To date, a definitive diagnostic method or etiology remains unknown. Our aim is to improve patients´ quality of life, and the ideal approach is to offer precise treatment for the underlying etiologies in those diagnosed with IBS. Therefore, it is necessary to analyze their stools in order to determine whether pathogenic microorganisms are present in the gut microbiota.

Methods

The feces were analyzed in the context of the medical diagnosis of IBS in the patients. Samples were collected in sterile containers and processed for bacteria aerobes within one to two hours and anaerobes one hour after collection, while being maintained at body temperature. Aerobic bacteria were cultured on MacConkey agar, EMB agar, Chromogenic Agar, MacConkey Sorbitol agar, and CLED medium with Andrade Indicator. Anaerobic bacteria were cultured on Wilkins-Chalgren agar and Chocolate agar, while Campylobacter was cultured on a selective Skirrow medium. Fungi were cultured on Sabouraud Dextrose Agar or Potato Dextrose Agar, and all samples were incubated under appropriate conditions of respiration: aerobic, microaerophilic, or anaerobic at 37°C and 22°C for fungi. All the bacteria and fungi were identified by CLSI standards and antibiotic sensibility tests were done by disc diffusion methods. For parasites, they were carried out in saline solution and Lugol´s solution and studied under the microscope at 40X. For *Cryptosporidium, Cyclospora or Microsporidium* a stained with acid-fast was done. (Figure No.1)

Results & Discussion

In 454 cases 77% were female, aged between 20 and 93 years old. *Campylobacter jejuni* (71.1%), *Prevotella melaninogenicus* (51.2%), *Escherichia coli* (25.3%), *Shigella flexneri* (15.4), *Yersinia enterocolitica* (14.1%), *Klebsiella pneumoniae* (10.3%) and others (Figure No.2) were among the predominant bacteria identified. The parasites were *Ascaris lumbricoides* (43.6%), *Entamoeba histolytica* (41.4%), *Microsporidium* (31.5%), *Blastocystis hominis* (26.5%), *Cyclospora* (26.3%), *Cryptosporidium* (26.4%), and *Strongyloides stercoralis* (10.7%). *Candida albicans* 26.2%, Candida glabrata (14.4%), *Geotrichum spp* (5.4%) accounted for fungal infections. Some patients had these digestive problems for many years up to 30 years, with one etiology 5.4%, two etiologies 60.0% and 3 or more etiologies 34.6%.

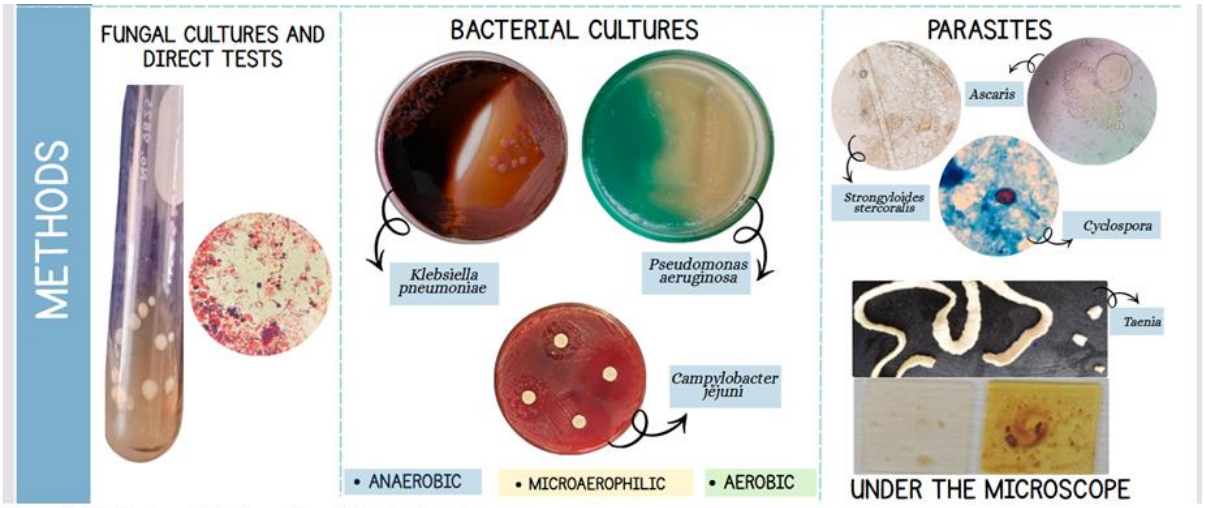


Figure 1. Methods and photos of the etiologies found.

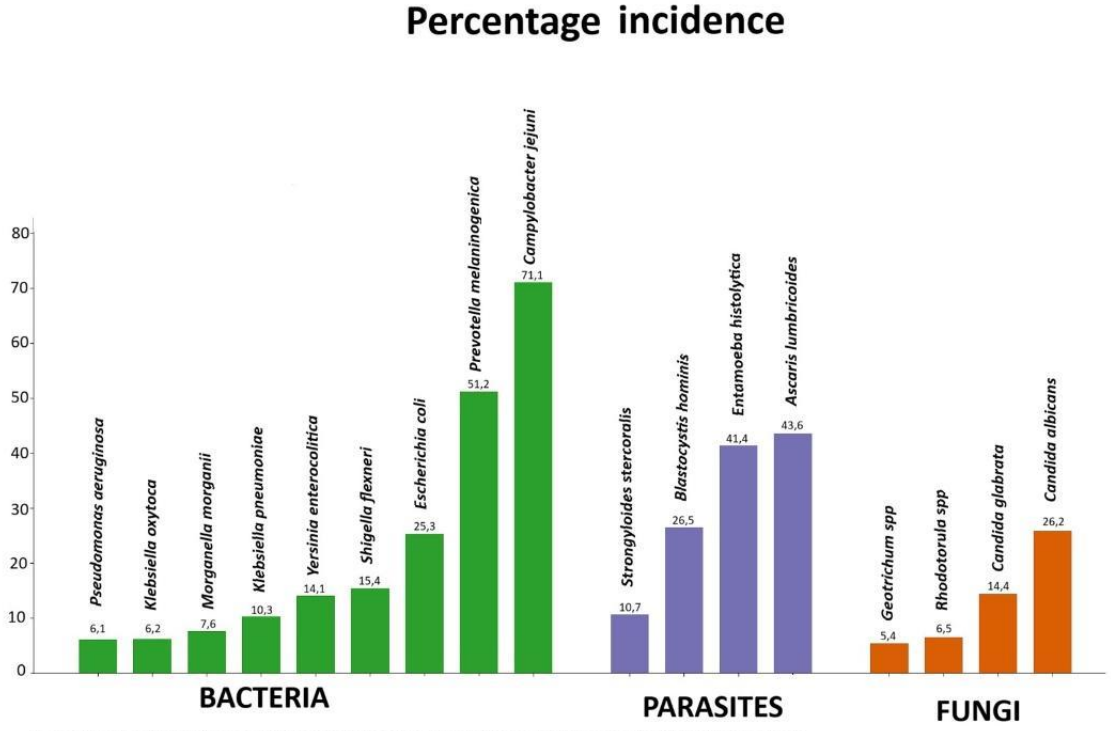


Figure 2. Results of the 454 cases: 77% were women between 20 and 93 years old. Some patients had IBS for 30 years.

After their treatments a 73.2% improved compared to their initial symptoms. This shows that IBS has new etiologies that must be search in all patients´ feces, and each etiology must be treated. If there is a known etiology or etiologies, the patient can avoid: 40-60% experience comorbid psychological disorders, including depression or anxiety. Plus, bloating, abdominal pain, weight loss, bleeding, gas, cramps, diarrhea, constipation, empirical treatments, save money, unnecessary hospitalizations, non-attendance at work.

Conclusion

This study has shown the importance to identify etiologies in patients with IBS, such as anaerobic, microaerophilic, aerobic bacteria, parasites, and/or fungi. Our findings offer significant advantages, there was a 73.2% improvement on patient´s quality life and healthcare.

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I thank God to show me to do this research: “why many persons were suffering of intestinal dysbiosis for many years” and nobody could give them a real solution and help them with their healthcare. Also, I want to thank all the physicians that trust in our results: Dr Javier Galvis, Lina Rubiano, Elias Stambulie, Alvaro Correa, Marcela Barrera, María Camila Acuña, William Joaqui, Carlos Báez, José Orduz, Jahn Arturo, Dayana Galvis, Lyda Perez, Paula Diez, Guillermo Diaz, Luisa Gonzalez, Ana María Betancourt, Felipe Bolivar, Mario Perilla, Victoria Vargas, Benjamin Ramirez, Sandra Arias, Leonardo Hernández and many others, and my staff that works in the institute, specially to Teresa Pinzón, Valentina Medina, Lyna Lozano, María Mercedes Sánchez. I have no conflict of interest.

Abbreviations: Irritable Bowel Syndrome= **IBS,** Eosin Methylene Blue= **EMB,** Cysteine-Lactose-Electrolyte Deficient= **CLED.**

References

1. Ordonez Smith, M. (2023). Clinical Microbiology Procedures Handbook 5th edition ASM Press (American Society for Microbiology). Author of a Chapter: Rapid Disk, Spot Tests, and Other Rapid or Primary Methods for the Identification of Anaerobes en el libro CMPH5 (Clinical Microbiology Procedures Handbook 5th edition) ISBN(Print):9781683673989ISBN.
2. Ordonez Smith, M. (2024). Microbes of Medical Importance. IIP Series_V3. Author of a Chapter Unit I: Bacteria Campylobacter, pages 96 a 112. DOI iip20244880FB531F3CB59 ISBN/ISSN SBN: 978-93-6252-342-6.
3. Ordonez Smith M, Flores J (2010). Presentación de un caso: Enfermedad Diarreica Aguda por Campylobacter y parasitismo intestinal, reconocimiento oportuno por técnica rápida de laboratorio. Revista Laboratório Actual. Asociación de Bacteriólogos Javerianos. Año 26 No. 42 pg 37-42. Versión impresa ISSN 1794-6220 Versión electrónica ISSN 2500-5235
4. Ordonez Smith M (2014). Guías Prácticas para los Laboratorios de Bacteriología Clínica. Editorial Médica Panamericana. 1ª Edición. P.1-265. ISBN 978-958-8442-47-8.
5. Ordonez Smith M (2016). Case report of gastroenteritis caused by Pseudomonas aeruginosa, diagnosis using a new direct sensitivity technique. The patient lost 22 pounds. 34th Annual Meeting of the European Society for Paediatric Infectious Diseases (ESPID 2016). Clinical education. A case or case series report. ESP16-0673
6. Ordonez Smith M. (2024). New transport Medium Tube (TMT) to preserve viable parasites, bacteria and fungus. ADLM (Association for Diagnostic & Laboratory Medicine) Meeting. Clinical Chemistry 70(Suplement_1).
7. Mishra S, Mann, B, Besmanos C, Raza, N, Heidari A. (2023) A unique case of Pseudomonas aeruginosa-associated diarrhea in a long – term hospitalized adult patient. Cureus. Jun 5(6): e39978.
8. Chuang, C-H et al. (2023) Association between histo-blood group antigens and Pseudomonas aeruginosa-associated diarrheal diseases. Journal of Microbiology, Immunology and Infection.Volume 56, Issue 2, April 2023, Pages 367-372.
9. Q Zhang et al. (2022). Klebsiella pneumoniae induces inflammatory Bowel Disease through Caspase-11-Mediated IL18 in the Gut Epithelial Cells. National Institutes of Health (NIH). Cell Mol Gastroenterol Hepatol. Nov 25;15(3):613–632.
10. Ash, L. R, Orihel, T.C. (2013). Atlas of Human Parasitology. 5th Ed. 2nd Reprint. Buenos Aires: Médica Panamericana 556. ISBN 978-950-06-0128-3
11. VinMec (2025). Beware of gastrointestinal fungus infections.
12. Im J, Lee K, Lee S H, Jung S, Kim KN, Lee J. (2026). Clinical Significance of Intestinal Fungal Overgrowth: Integrating the Gut Mycobiome into Modern Gastroenterology. Microorganisms 14(6), 1365;
13. Sokol, H.; Leducq, V.; Aschard, H.; Pham, H.P.; Jegou, S.; Landman, C.; Cohen, D.; Liguori, G.; Bourrier, A.; Nion-Larmurier, I.; et al. (2017). Fungal microbiota dysbiosis in IBD. Gut 66, 1039–1048.
14. Mohammad A, I. (2024) Cryptosporidium and irritable bowel syndrome. Tropical Parasitology. Feb 15;14(1):8-15.
15. Jin J et al. (2023). Microsporidia persistence in host impairs epithelial barriers and increases chances of inflammatory bowel disease. Microbiology Spectrum. Dec 27;12(2): e03610-23.
16. Skurski, Z, Halfpenny, C, Bernfeld, E, Bert B. (2026). Microsporidia. American Academy of Ophthalmology. April 30.
17. CLSI M100 Performance Standards for Antimicrobial Susceptibility Testing, 36th Edition/standards/products/microbiology/documents/m100/ 2025 SSN 2162-2914.
18. Kumar Prajapati A. (2024). Microbes of Medical Importance. Edition IIP Series. India. pg. 457-482.ISBN: 978-93-6252-342-6.

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