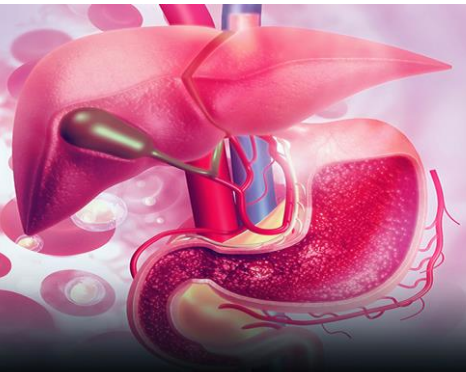


Enteron



Dear Doctor,

Greetings from Micro Labs limited.

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Should you require any specific article or medical information, please feel free to contact us at medicalservices@microlabs.in
Looking forward to your valuable feedback

Best Regards,
Medical Team, Micro Labs Ltd

AGA publishes new COVID-19 recommendations for Gastroenterologists

Key guidance for gastroenterologists:

- GI symptoms are not as common in COVID-19 as previously estimated: The overall prevalence was 7.7% (95% CI 7.4 to 8.6%) for diarrhea, 7.8% (95% CI: 7.1 to 8.5%) for nausea/vomiting, and 3.6% (95% CI 3.0 to 4.3%) for abdominal pain. Notably, in outpatients, the pooled prevalence of diarrhea is lower (4.0%).
- However, COVID-19 can present atypically, with GI symptoms: COVID-19 can present with diarrhea as an initial symptom, with a pooled prevalence of 7.9% across 35 studies, encompassing 9,717 patients. Most often, diarrhea is accompanied by other upper respiratory infection symptoms. However, in some cases, diarrhea can precede other symptoms by a few days, and COVID-19 may present as isolated GI symptoms prior to the development of upper respiratory infection symptoms.
- Monitor patients with new diarrhea, nausea or vomiting for other COVID-19 symptoms: Patients should inform gastroenterologists if they begin to experience new fever, cough, shortness of breath or other upper respiratory infection symptoms after the onset of GI symptoms. If this occurs, testing for COVID-19 should be considered.
- Abnormalities in liver function tests should prompt thorough evaluation: Liver test abnormalities can be seen in COVID-19 (in approximately 15% of patients); however, available data support that these abnormalities are more commonly attributable to secondary effects from severe disease, rather than primary virus-mediated liver injury. Therefore, it is important to consider alternative etiologies, such as viral hepatitis, when new elevations in aminotransferases are observed.

Source: American Gastroenterological Association May 2020. Available at <https://www.gastro.org/news/new-covid-19-guidance-for-gastroenterologists> accessed on 10/05/2020



Relationship between Serum Levels of Chemerin, Apelin, and Adiponectin and Clinical Symptoms, Quality of Life, and Psychological Factors in Irritable Bowel Syndrome

INTRODUCTION

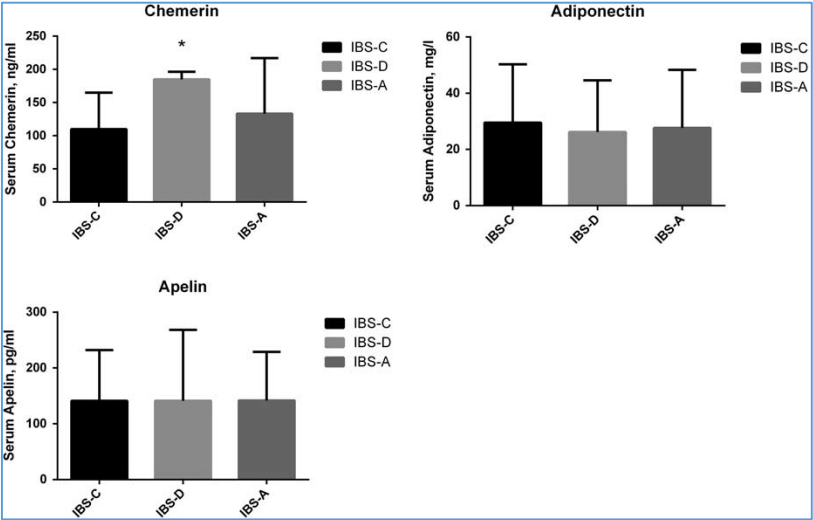
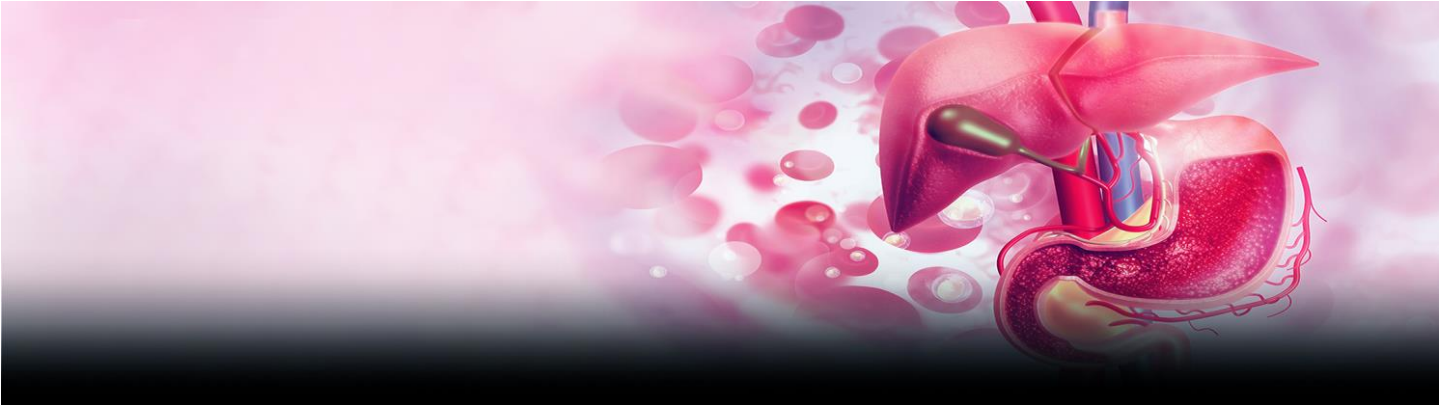
Irritable bowel syndrome (IBS) is a chronic intestinal condition marked by changes in digestive behavior, including stomach pain or irritation. IBS pathophysiology has not been precisely identified yet and the etiology of this disease remains ambiguous and uncertain. The pathophysiology of this condition includes heightened sense of physical discomfort, central nervous system control disturbances, autonomic and hormonal anomalies, hereditary and environmental causes, and psychosocial illnesses. Recent findings have shown that low-grade inflammation is one of the causes that may lead to intestinal function anomalies and decreased visceral sensation. In addition, the impact of psychosocial stressors and emotional factors on the persistence and development of IBS symptoms has been demonstrated beforehand. Adipokines are cytokines with endocrine metabolism and immune functions and are secreted by various tissue types. Several chronic conditions such as cardiovascular disease, type II diabetes, and inflammatory gastrointestinal (GI) disorders are associated with dysregulation of adipokine levels. The study was aimed to assess the serum concentrations of chemerin, apelin, and adiponectin in irritable bowel syndrome (IBS). Furthermore, the possible association of these adipokines with clinical symptoms, quality of life (QoL), and psychological factors is evaluated.

METHODS

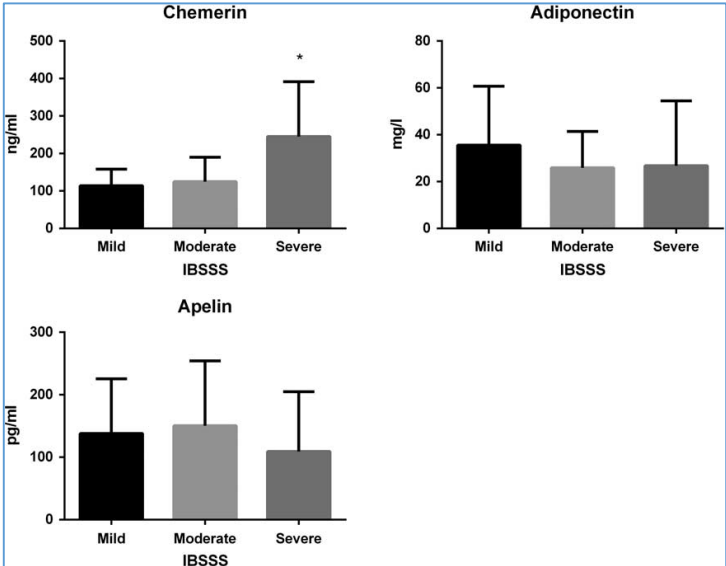
In this case-control study, 114 male and female IBS patients were recruited from outpatient clinics. Along with the IBS patients, 114 sex and age-matched healthy volunteers were recruited. Patients filled in the questionnaires of the IBS severity scoring system (IBSSS), gastrointestinal (GI) and somatic symptoms, IBS specific QoL (IBS-QoL), and psychological disorders, and went to the lab for blood sampling.

RESULTS

Serum levels of both adiponectin and apelin were significantly ($P=0.04$, 0.03 , respectively) lower, whereas chemerin was significantly ($P=0.01$) higher in IBS patients. Chemerin was higher in IBS-D compared with both IBS-C and IBS-A, while apelin and adiponectin were not different between subtypes. After adjustments for confounders only, chemerin had a positive association with IB severity scoring system and GI symptoms. Furthermore, chemerin had positive associations, whereas apelin and adiponectin had inverse associations with somatic symptoms and psychological factors. There were no significant associations between adipokines including chemerin, apelin, and adiponectin, and IBS-QoL.



Serum concentrations of adipokines in different bowel habit subtypes of IBS. All data are shown as mean± SD and analyzed by 1 - way analysis of variance. IBS indicates irritable bowel syndrome; IBS-A, alternating subtype; IBS-C, constipation subtype; IBS-D, diarrhea subtype. *P-values <0.05.



Serum concentrations of adipokines in mild, moderate, and severe irritable bowel syndrome. All data are shown as mean±SD and analyzed by 1 - way analysis of variance. IBSSS indicates irritable bowel syndrome severity scoring system. *P-values <0.05.



CONCLUSION

This research shows increased serum production of adipokine chemerin, and reduced apelin and adiponectin adipokines in patients with IBS compared with safe subjects. Chemerin, adiponectin, and apelin serum levels were correlated with the frequency of the somatic effects and psychiatric disorders. Notably, only the circulating concentration of chemerin was correlated with the frequency of GI symptoms after correction for possible confounders such as neurological conditions, and other measured adipokines had no association with IBS symptoms.

REFERENCES

Mohammad AB, Amir A, Koroush G, et al. Serum Levels of Chemerin, Apelin, and Adiponectin in Relation to Clinical Symptoms, Quality of Life, and Psychological Factors in Irritable Bowel Syndrome. *Jour Clin Gastroenterol* 2020;45(5):pe40-e49



The Impact of necrotizing pancreatitis on in-hospital and 1-year all-cause mortality and its microbiology

INTRODUCTION

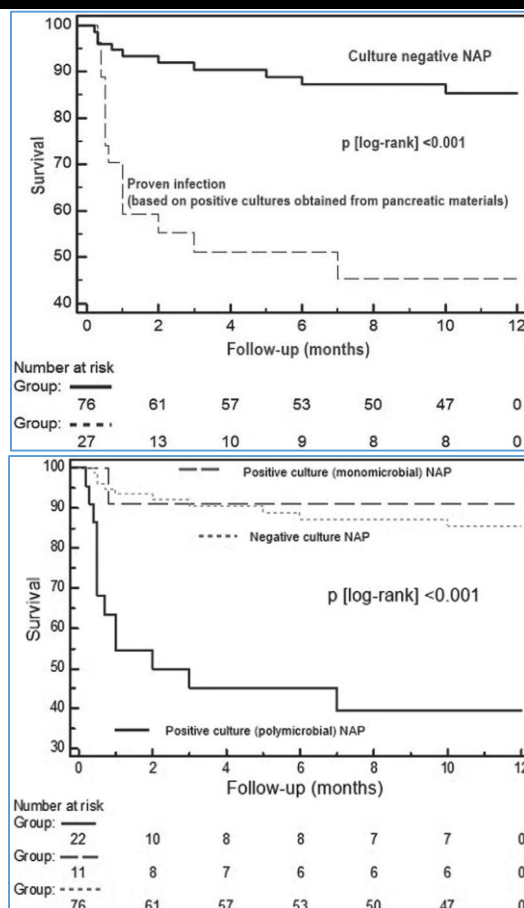
Acute pancreatitis is one of the most extreme gastrointestinal condition which needs hospital admissions. The disease's clinical path is extremely complex, from minor cases to multi-organ dysfunction, and death. When necrosis occurs inside the pancreatic or adjacent tissues, the mortality rate will increase to 30 per cent. In addition, necrotic tissue infection is an even more feared complication which further complicates the clinical path leading to sepsis, multi-organ failure and death in many. The treatment mechanisms are endoscopic and minimally invasive surgical procedures for extracting the necrotic debris together with adequate antibiotherapy and supporting interventions. However the details are sparse and uncertain when it comes to the microbial scope of compromised pancreatic necrosis. In general, gram-negative bacteria are considered accountable for diseases that are most likely triggered by destruction of the natural gut barrier and gastrointestinal tract ascension. However, in large-scale experiments this assumption has not been fully explored. Additionally, several research may have documented a change from a gram-negative to a gram-positive microbial flora owing to overuse of antibiotics. It is also possible that hospital-specific microbial flora that influence the microbial range, which in 50 per cent of cases appears to be polymicrobial. Therefore, this study assessed the microbial spectrum in patients with necrotizing acute pancreatitis (NAP) and signs and symptoms of infection. In addition, study also evaluated the impact of microbial findings on in-hospital and 1-year all-cause mortality.

METHODS

Patients with necrotizing pancreatitis were retrospectively included in the study. Based on culture results, patients were classified as either negative culture or positive culture necrotizing acute pancreatitis. The main outcomes of the study were the identification of agents isolated in patients with pancreatic necrosis and to assess in-hospital, 30-day and 1-year allcause mortality according to culture results.

RESULTS

In total, 109 patients of whom 33 had positive cultures were included in the study. Most positive cultures were polymicrobial (66%) with a marked gram-negative bacterial dominance (63%). *Klebsiella* spp. were the most common identified pathogens. The patients a with positive culture had worse outcomes in terms of in-hospital, 30-day and 1-year all-cause mortality compared to patients with sterile culture results ($n = 9$, 27.3% vs. $n = 4$, 5.3%, $P < 0.01$ for in-hospital mortality; $n = 11$, 33.3% vs. $n = 5$, 6.6%, $P < 0.01$ for 30-day mortality; and $n = 14$, 42.4% vs. $n = 10$, 13.2%, $P < 0.01$ for 1-year mortality).



CONCLUSION

Patients who had necrotizing pancreatitis with tests of polymicrobial culture had the worst performance in terms of both in-hospital mortality and 1-year mortality. The bacteria described were significantly gram negative, mainly the species *Klebsiella*. A polymicrobial etiology should be assumed when prescribing antibiotics to patients with assumed contaminated pancreatic necrosis, and attention should be given to local hospital flora. While the administration of antibiotics in pancreatic necrosis with presumed infection without positive cultures remains a contentious problem, owing to the very poor prognosis of these cases, some clinical or radiological proof of infection will cause antibiotic administration early.

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Biberi Keskin E, Okay G, Muhiddin D, et al. The microbiology of necrotizing pancreatitis and its impact on in-hospital and 1-year all-cause mortality. *Eur J Gastroenterol Hepatol*. 2020;32(6):695-700.



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