**Type 2 diabetes mellitus, obesity, cesarean section delivery, and lack of exclusive breastfeeding exposure in patients from the Guadalajara Metropolitan Area, Mexico**

**Free article**

**Abstract**

in [English,](https://pubmed.ncbi.nlm.nih.gov/39268556/#eng-abstract)[Spanish](https://pubmed.ncbi.nlm.nih.gov/39268556/#spa-abstract)

Introduction: the combination of cesarean section delivery and limited exposure to full breastfeeding (FBF) in the first six months of life may increase the risk of obesity and diabetes mellitus. This study aimed to establish an association between type 2 diabetes mellitus (T2DM) in adulthood, cesarean section delivery and incomplete full breastfeeding (FBF) in individuals from the metropolitan area of Guadalajara, Mexico. Methodology: this analytical cross-sectional study included patients over 18 years of age with T2DM and normal weight, overweight or obesity, regardless of sex. Informed consent was obtained. Variables encompassed T2DM, type of delivery method, first-year diet, family history, demographic, socioeconomic, and educational characteristics, and anthropometric measurements. For statistical analysis, Student's t test, chi-square tests and odds ratios were employed. Results: the study evaluated 218 patients with an average age of 57.8 years (± 12.7) and an average age at T2DM diagnosis of 46.2 years (± 12.5). FBF (65.6 %) and partial breastfeeding (PBF) (23.8 %) prevailed in the first six months. The average age at T2DM diagnosis was 46.7 years (± 12.1) for vaginally born patients and 30.7 years (± 15.5) for cesarean-born patients (p = 0.001). Cesarean delivery increased obesity risk by nine times in patients with T2DM [OR = 8.9 (CI, 1.05, 75.2), p = 0.02]. Conclusion: prioritizing the limitation of nonmedically justified cesarean section deliveries is crucial to mitigate the risk of obesity and T2DM in adulthood. .

**Keywords:**Diabetes mellitus de tipo 2. Obesidad. Método de nacimiento. Tipo de dieta.

**Gastrointestinal adverse effects of old and new antidiabetics: How do we deal with them in real life?**

**Free article**

**Abstract**

Diabetes is a public health problem with an estimated worldwide prevalence of 10% and a prevalence of 12% in Mexico. The costs resulting from this chronic-degenerative disease are significant. Treatment for diabetes involves different medication groups, some of which can cause significant gastrointestinal adverse effects, such as dyspepsia, nausea, vomiting, bloating, diarrhea, and constipation. The medications most frequently associated with said adverse effects are metformin, acarbose, and GLP-1 agonists. Gastrointestinal adverse effects negatively impact the quality of life and management of patients with diabetes. The factors of visceral neuropathy, acute dysglycemia, dysbiosis, and intestinal bacterial overgrowth contribute to the gastrointestinal symptoms in patients with diabetes, making it necessary to consider multiple etiologic factors in the presence of gastrointestinal symptoms, and not exclusively attribute them to the use of antidiabetics. Personalized treatment, considering gastrointestinal comorbidity and the type of drug utilized, is essential for mitigating the adverse effects and improving the quality of life in patients with diabetes. The aim of the present narrative review was to describe the gastrointestinal adverse effects of the antidiabetic drugs, their pathophysiologic mechanisms, and the corresponding therapeutic measures.

**Keywords:**Adverse effects; Antidiabetics; Antidiabéticos; Análogos GLP1; Efectos adversos; GLP1 analogues; Gastrointestinal symptoms; Metformin; Metformina; Síntomas gastrointestinales.

**Continuous and differential improvement in worldwide access to hematopoietic cell transplantation: activity has doubled in a decade with a notable increase in unrelated and non-identical related donors**

**Abstract**

Promoting access to and excellence in hematopoietic cell transplantation (HCT) by collecting and disseminating data on global HCT activities is one of the principal activities of the Worldwide Network for Blood and Marrow Transplantation, a non-governmental organization in working relations with the World Health Organization. HCT activities are recorded annually by member societies, national registries and individual centers including indication, donor type (allogeneic/autologous), donor match and stem cell source (bone marrow/peripheral blood stem cells/cord blood). In 2018, 1,768 HCT teams in 89 countries (6 World Health Organization regions) reported 93,105 (48,680 autologous and 44,425 allogeneic) HCT. Major indications were plasma cell disorders and lymphoma for autologous, and acute leukemias and MDS/MPN for allogeneic HCT. HCT numbers increased from 48,709 in 2007. Notable increases were seen for autoimmune diseases in autologous and hemoglobinopathies in allogeneic HCT. The number of allogeneic HCT more than doubled with significant changes in donor match. While HCT from HLA-identical siblings has seen only limited growth, HCT from non-identical related donors showed significant increase worldwide. Strongest correlation between economic growth indicator of gross national income/capita and HCT activity/10 million population was observed for autologous HCT (correlation coefficient [r]=0.79). HCT from unrelated donors showed strong correlation (r=0.68), but only moderate correlation was detected from related donors (r=0.48 for HLA-identical sibling; r=0.45 for other). The use of HCT doubled in about a decade worldwide at different speed and with significant changes regarding donor match as a sign of improved access to HCT worldwide. Although narrowing, significant gaps remain between developing and non-developing countries.

**Chronic nausea and vomiting syndrome and impact on quality of life**

**Free article**

**Abstract**

**Introduction and aim:**Chronic nausea and vomiting syndrome is a disorder of gut-brain interaction that affects the productive-age population. Our aim was to determine the association of this disorder with quality of life, workplace performance, and socioeconomic impact related to gastrointestinal health.

**Methods:**A cross-sectional study on a Mexican population was conducted. The patients were classified as having chronic nausea and vomiting syndrome or other disorders of gut-brain interaction. A comparative analysis of quality of life, workplace productivity, annual medical consultations, and digestive health-related expenses was carried out, applying a logistic regression model.

**Results:**One thousand patients were included, 79.2% of whom met the criteria for a disorder of gut-brain interaction. Of the 792 patients, 10.3% presented with chronic nausea and vomiting syndrome. Said syndrome was associated with a negative impact on usual activities (OR 4.34, 95% CI 1.90-9.30, p ≤ 0.001), pain/discomfort (OR 2.09, 95% CI 1.31-3.33, p ≤ 0.001), anxiety/depression (OR 2.08, 95% CI 1.30-3.40, p ≤ 0.001), workplace presenteeism (OR 3.96, 95% CI 2.47-6.44, p ≤ 0.001), and workplace absenteeism (OR 2.54, 95% CI 1.52-4.16, p ≤ 0.001). There was also a higher number of annual medical consultations for digestive health (p = 0.013), without generating a greater annual expense due to digestive health (p = 0.08).

**Conclusions:**Chronic nausea and vomiting syndrome produces a negative impact on quality of life, which could be secondary to its symptomatology or its association with anxiety and depression.

**Keywords:**Calidad de vida; Chronic nausea and vomiting syndrome; Disorder of gut-brain interaction; Nausea; Náusea; Quality of life; Síndrome de náusea y vómito crónico; Trastornos de la interacción cerebro intestino; Vomiting; Vómito.

**Gallstone ileus presenting in an elderly patient: A case report**

**Free article**

**Abstract**

**Introduction and importance:**Biliary ileus is a rare yet significant cause of mechanical intestinal obstruction, which occurs when a gallstone enters the gastrointestinal tract through a bilioenteric fistula, leading to intestinal blockage. This condition primarily affects elderly patients and is associated with high morbidity and mortality if not diagnosed and treated promptly.

**Case presentation:**We present the case of a 94-year-old female with a history of hypertension and chronic venous insufficiency. The patient was admitted with severe abdominal pain, nausea, and vomiting, with clinical findings suggestive of intestinal obstruction. Computed tomography revealed Rigler's triad, confirming the diagnosis of biliary ileus. An exploratory laparotomy was performed, identifying three gallstones in the small intestine. The patient underwent enterotomy for stone extraction and had a favorable immediate postoperative outcome.

**Clinical discussion:**Biliary ileus presents a diagnostic challenge due to its nonspecific symptoms. While Rigler's triad (pneumobilia, intestinal obstruction, and ectopic gallstone) is diagnostic, it is not always apparent in imaging. Surgical intervention remains the standard of care for resolving the obstruction, though appropriate preoperative management and timely surgery are crucial for improving outcomes.

**Conclusion:**This case emphasizes the importance of considering biliary ileus in the differential diagnosis of intestinal obstruction, particularly in elderly patients. Early surgical intervention is essential to prevent severe complications. Evidence based medicine ranking: Level IV.

**Keywords:**Acute abdomen; Biliary ileus; Gastric surgery; Obstruction.

**Advances in the Elimination of Viral Hepatitis in Mexico: A Local Perspective on the Global Initiative**

**Abstract**

Viral hepatitis (A-E) presents a major global health challenge. In 2015, the World Health Organization (WHO) launched an initiative to eliminate viral hepatitis, with the aim of reducing new infections by 90% and deaths by 65% by 2030. Mexico is one of 38 focus countries identified by the WHO, collectively accounting for 80% of global infections and deaths. While hepatitis B and C are commonly diagnosed in Mexico, routine diagnosis for hepatitis D and E is lacking, with no specific epidemiological data available. In 2020, Mexico implemented the National Hepatitis C Elimination Program, focusing on preventing new infections, reducing complications like cirrhosis and hepatocellular carcinoma, ensuring access to treatment, and improving patient care. However, this program has not been extended to hepatitis B and E. Addressing the challenges of viral hepatitis control in Mexico requires increased resource allocation, expanded diagnosis, vaccination for hepatitis A and B, and treatment coverage for hepatitis B and C, along with multisectoral engagement. This work provides an overview of Mexico's response to the global initiative, highlighting its progress, challenges, and areas of opportunity.

**Keywords:**HBV; HCV; HEV; viral hepatitis; viral hepatitis elimination.

**Multicenter study on *Clostridioides difficile* infections in Mexico: exploring the landscape**

**Abstract**

**Objective:**This study aims to outline *Clostridioides difficile* infection (CDI) trends and outcomes in Mexican healthcare facilities during the COVID-19 pandemic.

**Design:**Observational study of case series.

**Setting:**Sixteen public hospitals and private academic healthcare institutions across eight states in Mexico from January 2016 to December 2022.

**Patients:**CDI patients.

**Methods:**Demographic, clinical, and laboratory data of CDI patients were obtained from clinical records. Cases were classified as community or healthcare-associated infections, with incidence rates calculated as cases per 10,000 patient days. Risk factors for 30-day all-cause mortality were analyzed by multivariate logistic regression.

**Results:**We identified 2,356 CDI cases: 2,118 (90%) were healthcare-associated, and 232 (10%) were community-associated. Common comorbidities included hypertension, diabetes, and cancer. Previous high use of proton-pump inhibitors, steroids, and antibiotics was observed. Recurrent infection occurred in 112 (5%) patients, and 30-day mortality in 371 (16%). Risk factors associated with death were a high Charlson score, prior use of steroids, concomitant use of antibiotics, leukopenia, leukocytosis, elevated serum creatine, hypoalbuminemia, septic shock or abdominal sepsis, and SARS-CoV-2 coinfection. The healthcare-associated CDI incidence remained stable at 4.78 cases per 10,000 patient days during the pre-and pandemic periods. However, the incidence was higher in public hospitals.

**Conclusions:**Our study underscores the need for routine epidemiology surveillance and standardized CDI classification protocols in Mexican institutions. Though CDI rates in our country align with those in some European countries, disparities between public and private healthcare sectors emphasize the importance of targeted interventions.

**Double Row Hip Abductor Reconstruction with Fasciae Latae Transfer for Severe Trendelenburg after Hip Arthroplasty**

**Abstract**

**Background/Objectives**: Tendinopathy of the gluteus medius and minimus tendons is a primary source of lateral hip pain, ranging from interstitial and partial-thickness tears to complete tears. Treatments include muscle transfers, Achilles tendon allograft procedures, and primary repairs with allografts. This study evaluated the one-year outcomes of gluteus medius and minimus reconstruction using an open double-row technique with a partial tensor fasciae latae transfer for severe Trendelenburg post-total hip arthroplasty. **Methods:** A prospective study involving eight patients who underwent surgery from April to December 2023 was conducted. The surgery involved an open technique with double-row suture reinforcement and tensor fasciae latae autograft. Outcomes were measured using strength, the Harris Hip Score (HHS), 12-Item Short Form Health Survey (SF-12), Hip Outcome Tool (HOT), International Hip Outcome Tool (iHOT), and Visual Analog Scale (VAS). Follow-ups occurred at 1, 3, 6, 9, and 12 months postoperatively. **Results:** At an average follow-up of 7.17 months, significant improvements in both hip function and quality of life were observed. The SF-12 quality of life score increased from 27 preoperatively to 34 by month 12. Hip functionality, as measured by the HHS, showed a marked improvement from 48 to 94 points, particularly after six months. The HOT score for hip functionality rose by 23 points by the third month, reaching an average of 86 points. Similarly, the iHOT score increased from 20 to 83 points starting at month 3, reflecting substantial improvements in hip function. Statistically significant improvements were noted at as early as month 3 (*p* = 0.02), with highly significant gains by month 6 (*p* < 0.01), which remained stable through month 12 (*p* < 0.01). **Conclusions:** Reconstruction of the gluteus medius and minimus tendons using an open double-row technique with a partial tensor fasciae latae transfer significantly enhances hip function and quality of life. Over an average follow-up period of 7.17 months, patients experienced notable improvements. This technique is an effective option for treating lateral hip pain due to tendinopathy.

**Keywords:**double-row technique; gluteus medius reconstruction; tendinopathy treatment.

**Comments on "Single nucleotide polymorphism of Methyl-CpG-binding protein 2 gene associates with juvenile idiopathic arthritis"**

*No abstract available*

**Association Between Irritable Bowel Syndrome and Lower Urinary Tract Symptomatology: A Cross-sectional Study in Mexican Population**

**Abstract**

**Goals:**This study aimed to investigate the clinical phenotype of urinary symptoms in patients diagnosed with irritable bowel syndrome, the factors associated with this overlap, and the impact of urinary symptoms on their quality of life.

**Background:**Irritable bowel syndrome is a common disorder, affecting up to 3.8% of the population. The overlap with other disorders of the gut-brain interaction, psychiatric disorders, and other somatic disorders is common. Moreover, the association between irritable bowel syndrome and urinary symptoms has been recognized, but the clinical phenotype remains unclear.

**Study:**This cross-sectional study involved patients with irritable bowel syndrome according to Rome IV. Lower urinary tract symptoms were classified using the International Continence Society's classification. Data on demographics, medical history, medication use, anxiety, depression, and quality of life were collected and analyzed using logistic regression analysis.

**Results:**The study included 428 subjects, 86 diagnosed with irritable bowel syndrome. Patients exhibited a higher prevalence of lower urinary tract symptoms (60.5%, 95% CI: 50.5-71.9). Multivariate analysis revealed associations between irritable bowel syndrome and lower urinary tract symptoms (OR: 2.49, 95% CI: 1.48-4.18, P=0.001), particularly storage urinary symptoms (OR: 1.94, 95% CI: 1.10-3.40, P=0.021). Patients with urinary symptoms reported significantly lower quality of life compared with those without these symptoms (50.8±17.2 vs. 76.7±21.8, P<0.001).

**Conclusions:**Irritable bowel syndrome is associated with lower urinary tract symptoms, contributing to a significant reduction in quality of life. Clinicians should consider referring patients with irritable bowel syndrome and lower urinary tract symptoms to experts in urodynamics to provide targeted management.

**Characteristics of Hepatocellular Carcinoma by Sex in Mexico: A Multi-Institutional Collaboration**

**Abstract**

Liver cancer is the fourth leading cause of cancer-related death worldwide. In Mexico, there is a high burden of liver cancer mortality in rural states, affecting both women and men equally. Thus, we aimed to describe the demographic and clinical characteristics of hepatocellular cancer (HCC) by sex in Mexico. Demographic and clinical information was extracted retrospectively from the medical records of patients with HCC initially treated (2015-2022) at institutions participating in a national survey across the country. The male-to-female ratio was calculated at the national and regional levels, and the results were stratified by sex. Among 697 HCC patients, the age at diagnosis was 65.4 ± 11.9 years and 20% were diagnosed at ≥75 years. The male-to-female ratio was 1.4:1, ranging from 1:1 in the northwestern and southwestern regions, to 2.1:1 in the western region. The proportion of cirrhosis was similar between the sexes; however, the etiology of cirrhosis differed: cryptogenic cirrhosis was higher in women and alcohol consumption was higher in men. Men had a higher proportion of advanced HCC, poor/undifferentiated tumors, and ≥4 nodules than women. HCC in the Mexican population affects both men and women at a 1.4:1 male-to-female ratio. This unique proportion by sex could be explained by the differences in the prevalence of risk factors across our heterogeneous country.

**Keywords:**Mexico; cancer epidemiology; hepatocellular carcinoma; sex differences.

**The MESH-RTL Project for prevention of abdominal wound dehiscence (AWD) in high-risk patients: noninferiority, randomized controlled trial**

**Abstract**

**Purpose:**To compare reinforced tension line (RTL) and mesh techniques in the onlay position for preventing abdominal wound dehiscence (AWD) in a noninferiority clinical trial.

**Methods:**Patients > 18 years old who underwent midline laparotomy and who were considered at high risk on the modified Rotterdam risk scale were included. The outcomes analyzed were the incidence of AWD and surgical site occurrence (SSO).

**Results:**239 patients were included: 121 mesh group and 118 RTL group. Five (4.1%) of the 121 patients in the mesh group and 7 (5.9%) of the 118 patients in the RTL group presented with AWD (p = 0.56, RR = 0.69, 95% CI = 0.22-2.13) in the per-protocol analysis. The median time of presentation was 6 days. The 95% CI (-0.0567, 0.0231) for the difference in incidence between the two groups was entirely within the predefined noninferiority margin of 5%. The incidence of complications did not significantly differ between the two groups: the mesh group (27, 22.3%) and the RTL group (16, 12.8%) (p = 0.09, RR (95% CI) = 1.64 (0.93-2.89)).

**Conclusion:**The use of the RTL technique for preventing AWD was not inferior to the use of mesh in the onlay position, nor did it increase the risk of complications. This study was registered on clinicaltrials.gov: Mesh-RTL Project.

**Keywords:**Abdominal wound dehiscence; Mesh onlay position; Noninferiority clinical trial; Prevention; Reinforced tension line.

**Very early remission and increased apoptosis with the use of Pentoxifylline in children with acute lymphoblastic leukemia**

**Abstract**

**Introduction:**Despite the improvement in survival in acute lymphoblastic leukemia (ALL), there are still cases with evasion of chemotherapy-induced apoptosis. The IKK/NF-κB signaling pathway contributes to antiapoptotic gene expression. Pentoxifylline (PTX) inhibits IkB phosphorylation, blocking NF-κB and antiapoptotic activity.

**Methods:**We conducted a randomized, double-blind clinical trial on pediatric ALL patients undergoing induction therapy, assigning them to PTX or placebo group. Bone marrow aspirates were obtained on days 1, 8, 15, and 22. Apoptosis was assessed using Annexin-V/propidium iodide.

**Results:**Results indicated that the PTX group exhibited higher apoptosis on day-8 (41.3% vs. 19.4%, *p* =0.029) and day-15 (35.0% vs. 14.2%, *p* <0.01). On day-8, the PTX group displayed an MRD of 0.25% vs. 18.2% (*p* <0.01) in placebo group; on day-15, the PTX group demonstrated an MRD of 0.09% vs. 1.4% (*p* =0.02). Patients achieving an MRD <0.01% on day-8 demonstrated a 3-year Overall Survival (OS) of 81.6% vs. 58.3% (*p* =0.03); on day-15, patients with MRD <0.01% had a 3-year OS of 77.9% vs. 54.5% (*p* =0.03). The PTX group achieved an MRD of <0.01% earlier on days-8 and 15, along with a higher apoptosis rate, indicating a more favorable therapeutic response. In the entire cohort, patients achieving MRD <0.01% on day-8 or 15 displayed superior OS.

**Conclusion:**Our study demonstrates that PTX enhances apoptosis and reduces MRD in pediatric acute lymphoblastic leukemia patients.

**Clinical trial registration:**https://clinicaltrials.gov/, identifier.

**Keywords:**ALL; MRD; Pentoxifylline; apoptosis; childhood; clinical trials; early remission; treatment response.

**Increased Cytokine Levels in Seronegative Myositis: Potential Th17 Immune Response Implications**

**Abstract**

Th17 cells are known for producing IL-17 and their role in the pathogenesis of various autoimmune diseases, including myositis. Likewise, the participation of the IL-23/IL-17 pathway in autoimmunity has been confirmed. In this study, we aimed to evaluate the behavior of cytokines in myositis, focusing on the autoantibodies profile and the myositis core set measures. Twenty-five myositis patients were enrolled in this cross-sectional study. An expert rheumatologist evaluated the myositis core set measures. Serum levels of cytokines and chemokines were quantified using the LEGENDplex Multi-Analyte Flow Assay Kit from BioLegend. The autoantibodies detection was carried out using the line-blot assay kit Euroline: Autoimmune Inflammatory Myopathies from EUROIMMUN. We found higher serum levels of IL-33, CXCL8, IL-6, IL-23, and IL-12p70 in seronegative patients. A multiple linear regression analysis revealed that MYOACT scores could be predicted by the increment of IL-23 and the decrement of CCL2, IL-10, and CXCL8 serum levels. These findings suggest that the immune response in seronegative myositis patients exhibits an IL-23-driven Th17 immune response. The relevance of this discovery lies in its potential therapeutic implications. Insights into the IL-23-driven Th17 immune response in seronegative patients highlight the potential for targeted therapies aimed at modulating Th17 activity.

**Keywords:**IL-23; MYOACT; cytokines; myositis.