Case Reports Acta Neurol Taiwan

Stroke in Tuberculous Meningitis

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Abstract

A 17-year-old male presented with a 20-day history of vomiting, abdominal pain, weight loss, headache and fever progressing to dysarthria, somnolence, urinary incontinence, slurred speech, weakness, and inability to walk. Neurological examination revealed diminished visual acuity and diplopia. A head computed tomography (CT) showed acute hydrocephalus (Figure 1). Cerebrospinal fluid (CSF) analysis revealed pleocytosis (lymphocyte predominant), hypoglycorrhachia (8 mg/dL), and hyperproteinorrachia (156 mg/dL). The brain magnetic resonance imaging (MRI) revealed leptomeningitis, basal ganglia infarcts and basal meningeal enhancement highly suggestive of tuberculous meningitis (TBM) (Figure 2). We calculated a positive Thwaites score (-5) for TBM. The patient responded well to antituberculous treatment and dexamethasone. At 2 year follow-up the patient remains symptom-free. Stroke is a frequent complication of TBM and might contribute to long-term disability. Brain imaging findings, such as basal meningeal enhancement and basal exudates, hydrocephalus, and infarctions (TBM triad) are useful tools to rapidly identify probable TBM(3,4). Brain infarcts in TBM are located mostly in the arterial territory of distal branching arterires(5). Other less frequent imaging findings are tuberculomas and vasospasm. Key message: Hydrocephalus, basal meningeal enhancement, and basal ganglia infarcts should raise suspicion of tuberculosis, especially in endemic regions.

Nutr Hosp

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

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Free article

Abstract

Introduction: the combination of cesarean section delivery and limited exposure to exclusive breastfeeding (EBF) 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 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.

Review Dement Neuropsychol

Vascular cognitive impairment and dementia: a narrative review

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Abstract in English, Portuguese

Vascular cognitive impairment (VCI) is the second most common cause of cognitive impairment after Alzheimer's disease. The VCI spectrum involves a decline in cognition attributable to vascular pathologies (e.g., large infarcts or hemorrhages, microinfarcts, microbleeds, lacunar infarcts, white matter hyperintensities, and perivascular space dilation). Pathophysiological mechanisms include direct tissue injury, small vessel disease, inflammaging (inflammation + aging), atrophy, and altered neurotransmission. VCI is diagnosed using distinct clinical and radiological criteria. It may lead to long-term disability and reduced quality of life. An essential factor for reducing cognitive impairment incidence is preventing stroke by managing traditional and non-traditional cerebrovascular risk factors. This article reviews the spectrum of VCI, epidemiology, risk factors, pathophysiology, diagnosis, available treatment, and preventive strategies.

Keywords: Cerebrovascular Diseases; Cognition Disorders; Dementia; Stroke; Vascular Dementia.

Rev Invest Clin

Expanding Diagnostic Workup for hypertensive Intracerebral hemorrhage: a retrospective LATAM cerebrovascular registry comparison

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Abstract

Background: The leading cause of spontaneous intracerebral hemorrhage (ICH) is hypertensive arteriolopathy. In addition to age and hypertension history, patients usually present other comorbidities that potentially increase morbimortality. Ancillary studies other than non-contrast computerized tomography (NCCT) may help clarify the diagnosis and increase the detection of potentially modifiable vascular risk factors. Unfortunately, their use is not routinely performed.

Objective: The study aimed to determine the frequency of ancillary studies performed in patients with hypertensive ICH.

Methods: We performed a retrospective analysis of three Latin American cerebrovascular registries from academic medical centers, analyzing the results with descriptive statistics focusing on diagnosis and short-term outcomes.

Results: We analyzed a total of 1,324 patients (mean age 64 years). Hypertension and obesity were the most prevalent risk factors. Only 14% underwent MRI, 10.3% extracranial ultrasonography, and 6.7% echocardiography. Among the three registries, the Latin America Stroke Registry performed more ancillary studies. Most of the patients presented a poor clinical outcome and in-hospital death.

Conclusions: The use of ancillary studies in the diagnostic workup of ICH was poor in the three registries, and mortality was high. The lack of ancillary studies performed may negatively impact outcomes.

Keywords: Hypertension; Intracerebral hemorrhage; Neuroimaging.

J Intensive Care Med

N-acetyl-cysteine in Intensive Care Unit Patients with Acute Respiratory Distress Syndrome due to COVID-19: A Retrospective Cohort Study

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Abstract

Purpose: We assessed the potential association between N-acetyl-cysteine (NAC) and clinical outcomes in critically ill subjects with COVID-19-related ARDS.

Material and methods: We included subjects with confirmed COVID-19 who were admitted to our ICU between March 1, 2020, and January 31, 2021, due to ARDS and necessitating invasive mechanical ventilation (IMV). Subjects who received standard of care (SOC) were compared with subjects who additionally received NAC 600 mg bid orally.

Results: A total of 243 subjects were included in this study. The results indicate significantly improved survival rates in the NAC plus SOC group, both in the unadjusted analysis and after adjusting for confounding factors such as ARDS severity (HR 0.48, 95% CI 0.32-0.70).

Conclusions: We found that oral administration of NAC was associated with reduced mortality in critically ill patients with COVID-19 related ARDS.

Keywords: acetylcysteine; cohort studies; coronavirus infections; critical illness; intensive care units; mortality.