day), T45D (45 days after vaccination), and T6M (6 months after vaccination). Plasma cytokine levels were measured by ELISA and flow cytometry. Statistical analyses used the Mann–Whitney and Friedman tests.

Results: The BCG group showed statistically significant differences in IFN-α ($p < 0.0001$) and TNF-α ($p = 0.0086$) levels over time. IFN-α levels were higher at T6M than at T0 ($p < 0.001$), whereas TNF-α levels were lower at T6M than at T0 ($p = 0.0122$). In the placebo group, there were also differences in IFN-α ($p = 0.0360$) and TNF-α ($p = 0.0347$) across the three time points. IFN-α concentration decreased from T0 to T45D ($p = 0.0454$), and TNF-α increased from T45D to T6M ($p = 0.0334$). When comparing groups at each time point, IFN-α levels were higher in the BCG group than in placebo at T0 ($p = 0.0116$), T45D ($p < 0.0001$), and T6M ($p < 0.0001$). TNF-α was higher in the BCG group compared with placebo at T45D ($p = 0.0097$), with no difference at the other times.

Conclusion: It is likely that BCG modulated the cytokine profile analyzed in COVID-19 convalescent patients, leading to a sustained increase in IFN-α and a reduction in TNF-α levels six months after vaccination. This may impact disease progression and subsequent development of post-COVID symptoms.

Keywords: COVID-19, BCG, IFN-α, TNF-α, Cytokines.

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679

DEATH IN A YOUNG PATIENT REINFECTED WITH COVID

Elisa Maria de Oliveira Grotti *,
Luciana Bonafin Francisco, Iris Ricardo Rossin

Instituto de Educação Médica (IDOMED), Ribeirão Preto, SP, Brazil

The impact of infection with SARS-CoV-2 (COVID-19) varies widely depending on individual factors such as age and associated comorbidities. We report the case of a 39-year-old man, overweight (BMI 29), who was admitted to an Intensive Care Unit in 2021 due to respiratory failure associated with COVID-19. He received three doses of the COVID-19 vaccine, with the last dose in 2023; because he was not classified as belonging to a high-risk group, he did not receive booster doses in 2024 and 2025. In March 2025, after three days of symptoms, he sought medical care and was treated symptomatically. After seven days of symptoms, he developed Severe Acute Respiratory Syndrome (SARS), arriving at a referral hospital with oxygen saturation of 84%, tachypnea (34 breaths/min), respiratory effort, diffuse crackles, and mental confusion. High-resolution chest CT showed >70% lung involvement with a ground-glass pattern. A nasal swab antigen test was positive for SARS-CoV. High-flow nasal oxygen, dexamethasone, and anticoagulation were initiated; however, he worsened clinically, requiring orotracheal intubation (OTI) and mechanical ventilation with high PEEP and neuromuscular blockade, in addition to sedation and analgesia due to frank respiratory failure. He evolved with signs of shock of probable septic origin after five days of OTI; empiric antimicrobial therapy and vasoactive drugs were added, but he died after seven days in the ICU. This case illustrates the severity of the disease in a patient without significant comorbidities, but with a prior severe infection, who was not considered eligible for additional vaccine doses nor for the use of nirmatrelvir/ritonavir, according to the current Brazilian Ministry of Health protocol. This case should alert health authorities to reinfection situations in which the previous episode evolved to severe disease—circumstances in which the patient might be at risk of an unfavorable course in a new COVID-19 episode and could potentially benefit from nirmatrelvir/ritonavir, a medication included in the Ministry of Health strategic reserve but released only under pre-established criteria. In addition, booster vaccination protocols for COVID-19 should include patients with the profile described in this case report.

Keywords: Young Patient, Reinfected, COVID.

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680

ALTERED TASTE AND HIGH BODY WEIGHT: THE REALITY AND CONSEQUENCES OF POST-COVID CONDITIONS

Enya Julia Zucari Nogueira [a,*],
Heloiza Thaís Felippe de Camargo da Silva [b],
Caroline de Barros Gomes [b],
Bianca Soares Pinto [c],
Carlos Podalirio Borges de Almeida [c],
Eduardo Zacarias Ramos [d],
Yasmin Soares Carloni [d], James Venturini [d],
Arthur Campos Dias [e],
Paulo Ivo Homem de Bittencourt Jr [e],
Carlos Magno Castelo Branco Fortaleza [b],
Karen Ingrid Tasca [b]

[a] *Instituto de Biociências de Botucatu (IBB), Universidade Estadual Paulista (Unesp), Botucatu, SP, Brazil*
[b] *Faculdade de Medicina de Botucatu (FMB), Universidade Estadual Paulista (Unesp), Botucatu, SP, Brazil*
[c] *Faculdade de Saúde Coletiva (FASC), Universidade Federal do Sul e Sudeste do Pará (UNIFESSPA), Marabá, PA, Brazil*
[d] *Faculdade de Medicina (FAMED), Universidade Federal de Mato Grosso do Sul (UFMS), Campo Grande, MS, Brazil*
[e] *Instituto de Ciências Básicas da Saúde (ICBS), Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil*

Introduction: Post-COVID conditions (PCC) are characterized by persistent symptoms after the acute phase of SARS-CoV-2 infection, including fatigue and neurological, sensory, and metabolic changes. Anosmia and ageusia—common

symptoms—directly affect food preferences and may lead to excessive intake of salt and seasonings, resulting in weight gain and nutritional imbalances. Therefore, investigating the effects of PCC on food and sensory preferences is relevant to support nutritional and rehabilitation strategies that improve patients' quality of life.

Objectives: To analyze the association between PCC and self-reported sensory disturbances (loss of smell and taste), increased consumption of added salt, and changes in body weight after the acute phase of COVID-19 infection.

Methodology: This is a partial analysis of an analytical observational case-control study using a randomized sample from notifications of mild COVID-19 (e-SUS Notifica) and moderate/severe COVID-19 (SIVEP-Gripe) reported in selected Brazilian municipalities between 2022 and 2024. Questionnaires were administered by telephone, and data were entered into REDCap. Individuals who did not report PCC composed the control group (CG), whereas those who reported PCC composed the case group (PCCG). Descriptive analyses and association tests (Pearson's chi-square) were performed, with significance level set at $p < 0.05$.

Results: A total of 237 volunteers were included: 163 (68.8%) in the control group and 74 (31.2%) in the PCC group. Comparing groups, 41.9% of individuals with PCC reported weight gain, whereas only 12.9% of controls reported this change ($p < 0.0001$). The PCC group also showed a higher frequency of reports of changes in food preferences after acute illness (10.8% vs 2.5% in controls, $p > 0.006$), changes in smell and taste (40.5% vs 17.8%, $p < 0.0002$), and changes in the amount of salt added to meals (27.0% vs 12.9%, $p < 0.0076$).

Conclusion: Our findings demonstrate a significant association between PCC and sensory and behavioral changes, including loss of smell and taste, greater salt addition to meals, and weight gain. These results reinforce the importance of nutritional follow-up and sensory rehabilitation for patients with PCC, in order to minimize metabolic impacts and promote healthy eating habits.

Keywords: Long COVID, Eating Behavior, Sensory Changes, Post-COVID Syndrome.

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681

PAROTITIS IN AN INFANT WITH ADENOVIRUS INFECTION

Anna Elisa Amaro da Silveira [*],
João Canella da Silva, Júlia Maryana Cella,
Karina Heusser Neves

Centro Universitário da Fundação Educacional de Brusque (UNIFEBE), Brusque, SC, Brazil

Parotitis is an inflammation of the parotid glands frequently associated with the mumps virus, but it can also be caused by other viral agents, including adenoviruses. Although more commonly implicated in respiratory, gastrointestinal, and ocular illnesses, adenoviruses are double-stranded DNA viruses with the potential for atypical clinical manifestations, including their ability to lodge in the parotid glands during infection. This case report aims to describe a case of parotitis in an infant associated with adenovirus infection, highlighting its importance in the differential diagnosis in immunocompetent and vaccinated individuals. **This case report was approved by the Research Ethics Committee (CEP) under no. 89322925.0.0000.5636. The report describes a child who was 1 year and 5 months old at the time, with a history of mild viral infections, who initially presented with fever and respiratory symptoms, progressing within 24 hours to painful swelling of the right parotid gland and prostration. The child received symptomatic treatment and the vaccination schedule was checked, confirming two doses of the mumps vaccine series. After five days, a new fever occurred without worsening respiratory status, along with lymphocytosis and elevated C-reactive protein in laboratory evaluation. The condition progressed with nasal congestion, cough, increased swelling, and difficulty swallowing, raising the hypothesis of adenovirus infection due to the clinical diversity, absence of classic mumps signs, and confirmed vaccination. On the 9th day of symptoms, a laboratory test for adenovirus by immunofluorescence was performed using a nasopharyngeal swab, which detected traces of adenovirus, given the time interval between clinical manifestations and sample collection. Treatment remained symptomatic, with progressive improvement and complete resolution by the 12th day. The case highlights the relevance of parotitis as an uncommon manifestation of adenovirus, reinforcing the importance of broadened clinical assessment and diagnostic vigilance, especially in pediatrics, where clinical variations can mask unusual etiologies. The report contributes to the literature by documenting a rare presentation of a prevalent virus and encourages critical clinical reasoning in the face of atypical findings.

Keywords: Adenovirus, Parotitis, Infant, Viral infection, Differential Diagnosis.

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682

CLINICAL-EPIDEMIOLOGICAL PROFILE OF ACUTE RESPIRATORY INFECTIONS TRIGGERED BY RESPIRATORY SYNCYTIAL VIRUS (RSV) OCCURRING IN NORTHERN BRAZIL BETWEEN NOVEMBER 2024 AND MAY 2025

Maria Eduarda da Conceição Gomes [a,*],
Karla Fabiane Lopes de Melo [b],
Fabio Guilherme Mesquita Lima [c],
Renata Lia Coragem de Carvalho [d],
Luisa Tajuja Rocha [e],
Amanda Mendes Silva Cruz [b],
Luana Soares Barbagelata [b],
Wanderley Dias das Chagas Júnior [b],
Lumara Silvia Santana Ferreira [b],
Edna Maria Acunã de Souza [b],