

1. Case Report: Disseminated Paracoccidioidomycosis and Strongyloides Hyperinfection in a Patient with Human T-Lymphotropic Virus Type 1/2 Infection

Informe de caso: Paracoccidioidomicosis diseminada e hiperinfección por Strongyloides en un paciente con infección por virus linfotrópico T humano tipo 1/2

INVESTIGADORES: Juan Montenegro-Idrogo, Alfredo Chiappe-Gonzalez, Esperanza Vicente-Lozano, Gonzalo Cornejo-Venegas, Cristhian Resurrección-Delgado.

LINK: <https://pubmed.ncbi.nlm.nih.gov/38531110/>

REVISTA: Case Reports Am J Trop Med Hyg. 2024 Mar 26:tpmd230171. doi: 10.4269/ajtmh.23-0171.

ASPECTO: Co-occurrence of paracoccidioidomycosis and strongyloidiasis in immunosuppressed patients, particularly those infected with human T-lymphotropic virus type 1/2, is infrequent. We describe the case of a Peruvian farmer from the central jungle with human T-lymphotropic virus type 1/2 infection, with 2 months of illness characterized by respiratory and gastrointestinal symptoms associated with fever, weight loss, and enlarged lymph nodes. Strongyloides stercoralis and Paracoccidioides brasiliensis were isolated in sputum and bronchoalveolar lavage samples, respectively. The clinical evolution was favorable after the patient received ivermectin and amphotericin B. We hypothesize that autoinfestation by S. stercoralis in human T-lymphotropic virus type 1/2-infected patients may contribute to the disseminated presentation of Paracoccidioides spp. Understanding epidemiological context is crucial for suspecting opportunistic regional infections, particularly those that may coexist in immunosuppressed patients.

1. Impact of the COVID-19 Pandemic on the Treatment of Cancer Patients at a Hospital in Peru

Impacto de la pandemia de COVID-19 en el tratamiento de pacientes con cáncer en un hospital del Perú

INVESTIGADORES: Leny Bravo, Karla Vizcarra, Jenny Zavaleta, Kevin J Paez, Zaida Morante, Abel Limache-García, César H Saravia.

LINK: <https://pubmed.ncbi.nlm.nih.gov/39155527/>

REVISTA: Cancer Control. 2024 Jan-Dec;31:10732748241276616. doi: 10.1177/10732748241276616.

ABSTRACTO: Background: The appearance of the new coronavirus, SARS-CoV-2, in Wuhan - China, in 2019 led to the declaration of a COVID-19 pandemic by the World Health Organization. Peru confirmed its first case on March 6, 2020, prompting a significant change in medical care. Purpose: Our objective was to determine the impact of the COVID-19 pandemic on cancer treatment in Peru. Methods: A retrospective analysis of hospital data from the National Institute of Neoplastic Diseases revealed substantial decreases in oncological treatments in 2020 compared to 2019. Results: Oncological treatments involving bone marrow transplantation had a greater impact between the months of April and September, at -100% ($p=0.003$). However, treatments involving surgery in April (-95% [$p\leq 0.001$]), radiotherapy in May (-76% [$p=0.002$]) and chemotherapy in June (-71% [$p\leq 0.001$]) also showed significant impacts. Comparative analysis with international data revealed similar trends in cancer care interruptions in different countries. However, variations in the magnitude of the impact were observed, influenced by regional health policies and the severity of the pandemic. Conclusions: The findings underscore the challenges cancer care providers face during public health crises, requiring adaptive strategies to ensure continued access to essential treatments. Addressing these challenges requires comprehensive public health responses to mitigate the impact of future crises on cancer care systems.

2. Proposing the change of name of viruela del mono (monkeypox) in Spanish to viruela M

Proponiendo el cambio de nombre de viruela del mono a viruela M

INVESTIGADORES: Francisco Javier Membrillo de Novales, Jaime García Iglesias, Miriam Álvarez, Luis E Cuellar, María Eugenia Gutiérrez-Pimentel, Alexis M Holguin, Virgilio Lezcano, Susana Lloveras, Mariella Raijmakers, Iván Arturo Rodríguez Sabogal, Adriana Sucari, Alfonso J Rodríguez-Morales; Latin American Alliance for Infectious Diseases and Clinical Microbiology (ALEIMC).

LINK: <https://pubmed.ncbi.nlm.nih.gov/39244405/>

REVISTA: Editorial Enferm Infec Microbiol Clin (Engl Ed). 2024 Sep 6:S2529-993X(24)00186-2. doi: 10.1016/j.eimce.2024.08.001. Online ahead of print.

3. Biofilm formation and increased mortality among cancer patients with candidemia in a Peruvian reference center

Formación de biopelículas y aumento de mortalidad en pacientes con cáncer y candidemia en un centro de referencia peruano

INVESTIGADORES: Freddy Villanueva-Cotrino, Vilma Bejar, José Guevara, Ines Cajamarca, Cyntia Medina, Luis Mujica, Andres G Lescano.

LINK: <https://pubmed.ncbi.nlm.nih.gov/39395965/>

REVISTA: BMC Infect Dis. 2024 Oct 12;24(1):1145. doi: 10.1186/s12879-024-10044-5.

ABSTRACTO: Background: Candidemia is an invasive mycosis with an increasing global incidence and high mortality rates in cancer patients. The production of biofilms by some strains of *Candida* constitutes a mechanism that limits the action of antifungal agents; however, there is limited and conflicting evidence about its role in the risk of death. This study aimed to determine whether biofilm formation is associated with mortality in cancer patients with candidemia. Methods: This retrospective cohort study included patients treated at Peru's oncologic reference center between June 2015 and October 2017. Data were collected by monitoring patients for 30 days from the diagnosis of candidemia until the date of death or hospital discharge. Statistical analyses evaluated the association between biofilm production determined by XTT reduction and mortality, adjusting for demographic, clinical, and microbiological factors assessed by the hospital routine activities. Survival analysis and bivariate and multivariate Cox regression were used, estimating the hazard ratio (HR) as a measure of association with a significance level of $p < 0.05$. Results: A total of 140 patients with candidemia were included in the study. The high mortality observed on the first day of post-diagnosis follow-up (81.0%) among 21 patients who were not treated with either antifungal or antimicrobial drugs led to stratification of the analyses according to whether they received treatment. In untreated patients, there was a mortality gradient in patients infected with non-biofilm-forming strains vs. low/medium and high-level biofilm-forming strains (25.0%, 66.7% and 82.3%, respectively, $p = 0.049$). In treated patients, a high level of biofilm formation was associated with increased mortality (HR, 3.92; 95% $p = 0.022$), and this association persisted after adjusting for age, comorbidities, and hospital emergency admission (HR, 6.59; CI: 1.87-23.24, $p = 0.003$). Conclusions: The association between candidemia with in vitro biofilm formation and an increased risk of death consistently observed both in patients with and without treatment, provides another level of evidence for a possible causal association. The presence of comorbidities and the origin of the hospital emergency, which reflect the fragile clinical condition of the patients, and increasing age above 15 years were associated with a higher risk of death.

4. Evidence-based clinical standard for the diagnosis and treatment of candidemia in critically ill patients in the intensive care unit

Jorge Alberto Cortés, Martha Carolina Valderrama-Rios, Paula M Peçanha-Pietrobon, Moacyr Silva Júnior, Cándida Diaz-Brochero, Rafael Ricardo Robles-Torres, Carmelo José Espinosa-Almanza, Laura Cristina Nocua-Báez, Marcio Nucci, Carlos Arturo Álvarez-Moreno, Flavio Queiroz-Telles, Ricardo Rabagliati, Rita Rojas-Fermín, Jorge L Finkelievich, Fernando Riera, Patricia Cornejo-Juárez, Dora E Corzo-León, Luis E Cuéllar, Jeannete Zurita, Augusto Raúl Hernández, Arnaldo Lopes Colombo.

INVESTIGADORES: Jorge Alberto Cortés, Martha Carolina Valderrama-Rios, Paula M Peçanha-Pietrobon, Moacyr Silva Júnior, Cándida Diaz-Brochero, Rafael Ricardo Robles-Torres, Carmelo José Espinosa-Almanza, Laura Cristina Nocua-Báez, Marcio Nucci, Carlos Arturo Álvarez-Moreno, Flavio Queiroz-Telles, Ricardo Rabagliati, Rita Rojas-Fermín, Jorge L Finkelievich, Fernando Riera, Patricia Cornejo-Juárez, Dora E Corzo-León, Luis E Cuéllar, Jeannete Zurita, Augusto Raúl Hernández, Arnaldo Lopes Colombo.

LINK: <https://pubmed.ncbi.nlm.nih.gov/39709887/>

REVISTA: Braz J Infect Dis. 2024 Dec 21;29(1):104495. doi: 10.1016/j.bjid.2024.104495. Online ahead of print.

ABSTRACTO: Candidemia is the predominant form of invasive candidiasis and the most frequently occurring serious fungal infection in critically ill patients in Intensive Care Units (ICU). Studies carried out in Latin America reveal a higher incidence of candidemia and higher mortality rates when compared to North America or Europe. This highlights the need to develop guidelines for correctly diagnosing and treating candidemia in critically ill patients in the ICU. These guidelines are part of the efforts to implement antifungal optimization programs in the region to obtain better clinical outcomes and promote rational antifungal use. This evidence-based clinical standard, established through expert consensus for the Latin American context, contains recommendations and algorithms for diagnosing and treating candidemia in critically ill ICU patients.