ventilation. Most isolates were susceptible to penicillins, with 88% classified as susceptible and 10% with intermediate susceptibility; no resistant strains were identified. All samples were also susceptible to ceftriaxone and vancomycin (100%). The median length of hospital stay was 14 days, and 52% of patients died during hospitalization.

Conclusion: IPD showed high lethality in a predominantly elderly population with multiple cardiometabolic comorbidities. Despite high susceptibility of strains to penicillin and ceftriaxone, the clinical severity of cases was reflected in high ICU admission rates and in-hospital mortality.

Keywords: Invasive pneumococcal disease, Streptococcus pneumoniae, Antimicrobial resistance.

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376

MOLECULAR DIAGNOSIS AS A TOOL FOR EARLY SCREENING OF HUMAN PAPILLOMAVIRUS (HPV)

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Introduction: Human papillomavirus (HPV) is associated with about 4.5% of human cancers, especially cervical cancer, which accounts for approximately 604,000 cases and 342,000 deaths annually attributed to the virus. Among more than 400 described genotypes, only 12 are classified as oncogenic: 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, and 59 (NELSON; MIRABELLO, 2023). Cervical cancer screening combines minimally invasive methods, such as liquid-based cytology and Papanicolaou staining, with molecular tests based on PCR, which enable early and sensitive detection of viral DNA, even before visible cellular changes.

Objective: To evaluate the application of molecular diagnosis by PCR for early detection of HPV in cervical samples, in association with liquid-based cytology.

Methods: A total of 260 clinical samples of endocervical and vaginal secretions received between January and June 2025 were evaluated. All samples were collected from female individuals with a mean age of 35 years. Co-testing (molecular detection of HPV by PCR and cytology stained by the Papanicolaou technique) was performed in 81 samples, allowing integrated analysis of viral presence and cellular abnormalities.

Results: High-risk HPV DNA was detected in 64 (24.6%) of the 260 samples analyzed. Genotype HPV 16 was found in 13.2% of samples, HPV 18 in 17% of samples, and other high-risk genotypes (31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68) were detected in 69.8% of samples. Among the 81 samples submitted to co-testing, 62 had negative PCR and normal cytology (76.5%), 18 were PCR positive for high-risk HPV with normal cytology (22.3%), and only 1 sample had positive PCR for high-risk HPV with abnormal cytology (1.23%). No samples showed cytological abnormalities with negative PCR.

Conclusion: The integration of molecular diagnosis by PCR as a tool for early HPV screening is an essential approach in combating cervical cancer. While cytology identifies cellular changes suggestive of lesions with lower sensitivity, PCR can detect viral DNA early, even in the absence of cytological abnormalities. This combination enhances the capacity for timely intervention, contributing significantly to prevention and reduction of cervical cancer incidence.

Keywords: HPV, Screening, Molecular, PCR.

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377

DELAYED DIAGNOSIS OF A RARE CAUSE OF MALABSORPTION SYNDROME: A CASE REPORT OF WHIPPLE'S DISEASE

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Whipple's disease is a rare, chronic, insidious multisystemic bacterial infection caused by Tropheryma whipplei, a gram-positive bacillus. It predominantly affects middle-aged White men with a history of occupational exposure to soil or animals, suggesting genetic predisposition and altered immune response. Its classic clinical presentation includes migratory arthralgias, chronic diarrhea, crampy abdominal pain, and progressive weight loss due to intestinal malabsorption. However, pulmonary and neurological symptoms, lymphadenopathy, and fever may also occur. The disease should be suspected in patients with unexplained multisystemic manifestations, and its diagnosis is based on small-bowel biopsy with periodic acid-Schiff (PAS) staining and PCR confirmation, potentially involving analysis of other tissues. Treatment requires bactericidal antibiotics with good central nervous system penetration for a prolonged period, as well as regular clinical and laboratory monitoring. We report the case of O.R. P., a 50-year-old man who had a 7-year history of progressive asthenia, lower limb edema, and recurrent ascites. He reported significant weight loss (20 kg in 10 months), chronic diarrhea, dyspnea with minimal exertion, and peripheral lymphadenopathy. His condition was highly debilitating, limiting basic and occupational activities. Laboratory tests showed microcytic, hypochromic anemia, lymphopenia, and left shift. Further evaluation with colonoscopy revealed distal ileal thickening, and gastric and duodenal mucosal biopsies

showed an infiltrate with foamy macrophages that stained PAS-positive. Based on these findings, the diagnosis of Whipple's disease was established, and treatment with oral doxycycline plus oral hydroxychloroquine was started. After three months, there was resolution of anasarca, cessation of diarrhea episodes, and marked weight gain (19 kg). Therapy was continued, with recommendations for multidisciplinary outpatient follow-up, including infectious diseases and nutrition. This case highlights the relevance of considering Whipple's disease in the differential diagnosis of malabsorption syndromes and chronic unexplained systemic conditions, particularly in middle-aged men with joint and gastrointestinal manifestations. As recommended, multidisciplinary follow-up is essential, since relapses may occur years after initial treatment.

Keywords: Whipple's disease, Malabsorption syndrome, Bacterial infection, Differential diagnosis, Immune response.

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378

INTRAORAL DEVICES AS POTENTIAL RESERVOIRS OF PATHOGENS: EFFECT OF ACRYLIC RESIN MANUFACTURING TECHNIQUE, PRINTED AND MILLED ON SUSCEPTIBILITY TO POLYMICROBIAL BIOFILM COLONIZATION

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Introduction/Objectives: Biofilm development on intraoral devices represents a relevant challenge in clinical practice, especially in immunocompromised patients or those at increased risk of opportunistic infections. We evaluated the influence of surface properties of acrylic resins used in the fabrication of occlusal splints on biofilm formation derived from human saliva, as a representative model of the complexity of oral microbiota.

Methodology: Cylindrical acrylic resin (PMMA) specimens (4.0 × 1.5 mm) were fabricated under three conditions: heat-polymerized (RAT group, control), milled (RAF group), and 3D-printed (RAI group), with n=120 per group. After standardized finishing and polishing, surface free energy (contact angle, θ), roughness (Ra), total biofilm quantification, biofilm extracellular matrix, and surface morphology by scanning electron microscopy (SEM) were evaluated. Statistical analysis used ANOVA with Tukey's test for physicochemical data and the Mann-Whitney test for microbiological variables (α=0.05).

Results: The RAI group had a significantly more hydrophilic surface (55.10 ± 5.82°) than RAF (73.30 ± 4.71°) and RAT (71.70 ± 4.08°) (p<0.001). Although roughness was similar among RAT (13.3 ± 1.44), RAI (13.8 ± 1.52), and RAF (16.1 ± 1.78) (p=0.067), biofilm formation was significantly higher in RAI from day 4 onwards (0.53 ± 0.2) (p<0.05), with marked production of carbohydrate-rich extracellular matrix, which was absent in RAF. The RAF group remained less susceptible to microbial colonization over six days of incubation. SEM images showed that biofilm formation varied according to resin type: RAI had the highest number of bacterial cells at all three time points; RAF showed greater morphological diversity on day 4; and RAT had overall lower colonization, although with an increase on day 4.

Conclusion: Manufacturing method influences biofilm formation on PMMA intraoral devices, with relevant implications for the prevention of device-associated infections. 3D printing generates surfaces more prone to bacterial adhesion and extracellular matrix accumulation, potentially representing a risk factor for persistent infections in the oral environment, whereas milling appears to be a more suitable alternative from the standpoint of microbial control.

Keywords: Biofilm, Occlusal devices, Opportunistic infections.

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379

LYME-LIKE DISEASE PRESENTING WITH MYELITIS IN AN IMMUNOCOMPETENT PATIENT

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Lyme disease is a bacterial zoonosis caused by spirochetes of the Borrelia burgdorferi sensu lato complex, transmitted to humans by ticks, and is endemic in the Northern Hemisphere, particularly in North America. In contrast, Lyme-like syndrome is an entity attributed to atypical spirochetes that mimic the classic form. In Brazil, reports exist in the Northeast, Center-West, Southeast, South, and Amazon regions. However, Borrelia burgdorferi has never been isolated in Brazil, generating debate about etiology and diagnostic criteria. A 29-year-old man, previously healthy, a cook, living in Encruzilhada do Sul/RS, with a history of contact with livestock and handling of leather, developed low back pain after running, with partial improvement on anti-inflammatories, followed by paresthesias in the lower limbs and urinary retention at the end of the day. Paresthesias progressed with difficulty walking, although muscle strength remained preserved. He denied fever, travel, vaccination, or recent infections. He sought emergency care due to suspected spinal cord compression, which was ruled out by MRI that showed a diffuse intramedullary hyperintense lesion from T7–T8 to the conus medullaris. CSF analysis showed 157 cells