

ranging from 100 to 1.56 $\mu\text{g/mL}$. After 72h of incubation, the supernatant was discarded, and MTT solution (0.5 mg/mL) was added and incubated for 3h. Subsequently, the solution was discarded and DMSO was added to completely dissolve the formazan crystals. Data analysis was performed using GraphPad Prism 8.0 software and all experiments were conducted in triplicate. **Results:** The main findings were derived from the evaluation of mean concentrations of Piper nigrum oils required to achieve 50% of the maximum inhibitory effect (IC₅₀) in cell growth. Oil I exhibited an IC₅₀ of 23.6 $\mu\text{g/mL}$, while oil II showed an IC₅₀ of 20.6 $\mu\text{g/mL}$. Oil III displayed the best results with a lower IC₅₀ at 13.5 $\mu\text{g/mL}$. This analysis suggests that the oils possess distinct chemical compositions, leading to variations in their cytotoxic activity. **Discussion and conclusion:** Cell viability assays demonstrated the significant antineoplastic activity of the oils. There was variation in the cytotoxic potential between oils, oil I being the least effective while oil III showed the most cytotoxic effect. This research is pioneering in employing oils derived from Piper nigrum in the context of ALL, supporting previous evidence about their antineoplastic properties. In light of these findings, further biological analyses are warranted, comparing the activity of the oils in multiple cell lines.

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ANTIPLATELET ANTIBODIES RESULTING FROM DENGUE VIRUS INFECTION: A LITERATURE REVIEW

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Introduction: Dengue is an endemic and seasonal arboviral disease, predominantly affecting tropical and subtropical regions. Brazil stands out as the country with the highest number of cases, with over 6 million reported by the end of 2024. The disease is transmitted by the *Aedes aegypti* mosquito and is caused by four DENV serotypes (DENV-1, 2, 3, and 4). Clinically, dengue manifests as an acute febrile illness, with symptoms such as fever, headache, myalgia, and retro-orbital pain. The critical phase generally occurs between the 3rd and 7th day of illness and may progress to plasma leakage and hemorrhages, characterizing the hemorrhagic form. Clinical diagnosis can be challenging due to similarities with other viral infections, requiring specific laboratory tests for virus and/or antibody detection. From a hematological standpoint, changes in the complete blood count are relevant for clinical monitoring, including thrombocytopenia, leukopenia, lymphocyte atypia, and hematocrit alterations. Thrombocytopenia, in particular, is an important severity marker, observed in both mild and severe cases, including hemorrhagic dengue.

Aim: This study aims to explore the role of antiplatelet antibodies and thrombocytopenia in dengue. **Material and methods:** This research was conducted through a literature review, based on articles from the PubMed and Scielo databases, from 2001 to 2025, using the descriptors: dengue, dengue and blood count, thrombocytopenia, and platelet antibodies. **Discussion and conclusion:** Thrombocytopenia is defined as a platelet count below 100,000/ μL , and as severe when below 50,000/ μL . Automated platelet counting methods include electrical impedance and fluorescence optical counting, the latter being more accurate as it avoids interference from cell fragments. Manual counting is often used as confirmation. The frequency of thrombocytopenia in dengue patients is high: approximately 50% present thrombocytopenia (< 100,000/ μL), and around 24% develop severe thrombocytopenia (< 50,000/ μL). The severity of thrombocytopenia is directly associated with increased risk of death. A study with over 4,000 patients showed little variation in platelet count between those with and without active bleeding, indicating that thrombocytopenia is not necessarily correlated with visible hemorrhage. The pathophysiological mechanisms of thrombocytopenia include destruction of bone marrow precursors and increased platelet adhesion to the endothelium due to virus-induced immune activation. Symptoms such as petechiae are common, and changes such as hemoconcentration, lymphocytosis, and leukopenia appear in different stages of infection. In severe cases, disseminated intravascular coagulation (DIC) may occur, consuming platelets and coagulation factors, thereby increasing the risk of fatal hemorrhage. In addition to the direct effects of the virus, antiplatelet antibodies—especially anti-NS1—play an important role in platelet destruction. They can activate the complement system, cause platelet lysis, or promote inappropriate platelet aggregation, impairing their hemostatic function. The NS1 antigen is detectable in the early days of infection, and the production of antibodies (IgM and IgG) varies according to the type of infection (primary or secondary), influencing the immune response and associated risks. This study concludes by highlighting the importance of early recognition of thrombocytopenia as a severity marker in dengue and suggests that antiplatelet antibodies may play a crucial role in its pathophysiology.

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ASSOCIAÇÃO ENTRE HIPERFERRITINEMIA SEM SOBRECARGA DE FERRO E A PREVALÊNCIA DE COMORBIDADES EM PACIENTES DO HOSPITAL DE CLÍNICAS DA UNIVERSIDADE FEDERAL DO TRIÂNGULO MINEIRO

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