

COMPARATIVE PROTEOMIC ANALYSIS OF PLASMAS FROM PATIENTS WITH DENGUE HEMORRHAGIC FEVER AND FROM HEALTHY DONORS

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In order to contribute to a better understanding of the pathogenesis of dengue hemorrhagic fever (DHF), this study aimed at identifying proteins that are differentially expressed in plasmas from patients with DHF and from healthy donors. The initial comparison of 2D electrophoresis profiles of plasmas from healthy donors and patients, chromatographically depleted of albumin and IgG, displayed several differentially expressed spots that were identified by MALDI-TOF/TOF MS as fibrin beta chain, vitamin D-binding protein, vitronectin, complement C3, apolipoprotein A-I, haptoglobin, transferrin and hemopexin. However, these differences were not statistically significant. Therefore, we decided to deplete the six most abundant proteins from plasmas and began to use the Fluorescence 2-D Difference Gel Electrophoresis (DIGE) technique. After combining the results from 13 gels, several differentially expressed spots with $p < 0.01$ were identified by MALDI-TOF/TOF MS such as alpha-1-acid glycoprotein, vitamin D-binding protein, alpha 1 antichymotrypsin, complement component C3, C1 inhibitor, transthyretin, apolipoproteins A-I and A-IV, macroglobulin alpha2 and prothrombin. These proteins may be involved with the inflammatory process triggered by dengue virus infection and/or may indicate repair mechanisms of vascular damage occurring in this pathology.

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