Expert’s Comments

The potential use of the leptospiral major outer membrane lipoprotein LipL32 in the diagnosis of leptospirosis

Standard diagnostic tests for leptospirosis such as the microscopic agglutination test (MAT) and ELISA are based on the detection of lipopolysaccharide (LPS) specific antibodies in human serum samples. LPS specific antibodies may remain present at detectable levels for a relatively long period and some individuals remain positive for months or even years after recovery. In endemic areas, this may lead to an unwanted low specificity of these tests. A recent study showed that the seroprevalence for leptospirosis (as determined in IgM ELISA) was as high as 28% in the Amazon area of Peru.[4] The leptospiral major outer membrane lipoprotein LipL32 is expressed during infection by all pathogenic strains and can prove to be an important candidate antigen for the development of a sensitive and specific test for leptospirosis.[5] It was shown that LipL32 can be used as antigen in IgG ELISA.[6] Culture, MAT and ELISA can be applied in well-equipped laboratories by trained staff. However, only very few diagnostic facilities have the capacity and expertise to perform these tests for leptospirosis. Simple and rapid tests for leptospirosis are available that can be easily used by health staff outside these specialised laboratories.[4,5] These so-called point-of-care tests use LPS as the antigen. It is important to determine whether the use of LipL32 will improve the assay characteristics and clinical utility of these rapid tests.

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References