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Hong Kong researchers suggest HCMV detection in urine as routine test for HIV-1 patients

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Easier to detect HCMV in urine than in blood



A Hong Kong Baptist University (HKBU) collaborative research team has shown that urine tests for human cytomegalovirus (HCMV) can identify the risk of end-organ diseases such as pneumonitis, gastrointestinal ulcers, hepatitis and myocarditis, earlier in patients who have been infected with human immunodeficiency virus type 1 (HIV-1).

The findings suggest that HCMV detection in urine should be implemented as a routine test for HIV-1 patients who are progressing towards acquired immunodeficiency syndrome (AIDS), as anti-HCMV treatments could reduce the incidence of lung and cardiovascular end-organ diseases by half.

HCMV is a DNA virus found in more than half of the human population. It is controlled by an intact immune system and remains dormant in healthy individuals. However, it can be reactivated in patients with poor immune systems, such as those in the fourth stage of HIV-1 infection, and as a result it can become one of the major opportunistic infections that cause life-threatening end-organ diseases. In Hong Kong, HCMV detection is not part of the routine check-ups for HIV-1 patients unless they suffer from apparent end-organ diseases. In such cases, blood tests are the preferred method of detection.

According to researchers, routine urine tests for HCMV can monitor the development of end-organ diseases more effectively, which signals the need for early medical intervention.