ABSTRACT

BACKGROUND: The human immunodeficiency virus (HIV) epidemic has been growing in China over the past few years. Extensive investigations on the neurocognitive impact of HIV have been carried out in the West, where clade B is the predominant HIV subtype. There are only a few studies on the neurocognitive pattern of Chinese in Hong Kong, where clade E and clade B HIV was equally distributed in the population. The objective of the present study was to examine the prevalence and the patterns of neurocognitive impairment of Hong Kong Chinese. METHOD: Participants include 119 HIV+ Chinese patients between the age of 18 to 50 recruited from a major tertiary specialist centre offering and territory-wide comprehensive treatment. For the comparison group, 153 age and years of education matched HIV- controls were recruited from the Hong Kong Red Cross Blood Transfusion Service. A neuropsychological test battery consisted of 12 test measures agreed to be sensitive in detecting the effects of HIV on the brain was administered to the participants. RESULTS: Factor analysis was used to evaluate the factorial validity of the test battery and 6 neurocognitive domains were identified. A total of 24% of HIV+ participants were classified to suffer from global neurocognitive deficits. No clade-specific difference was observed in terms of prevalence of neurocognitive impairment and pattern of neurocognitive performance. Two-stage cluster analysis identified 5 clusters in both HIV+ and HIV- groups respectively. There was an overall taxonomy of 3 groupings, which are HIV+ patients who are globally impaired, who are neurocognitively intact, and who are subclinical. Neurocognitive impairment was found to have no association with depressed mood and medical indices of CD4 cell count and plasma viral load. Nevertheless, the group of globally impaired group was

significantly older than the neurocognitively intact group.

CONCLUSIONS: Among HIV+ Hong Kong Chinese, there is a pattern of subtle and variable neurocognitive deficits. The present findings has highlighted its compatibility with research on the neurocognitive profiles in clade B HIV+ individuals in the West and the impact of cART on the presentations of HAND.

摘要

背景：近年，中國的愛滋病毒感染個案正在不斷上升。大部份有關愛滋病患者的腦神經心理的研究都是在西方進行的，而西方的感染個案都是 B 型 (clade B) 愛滋病毒。目前，只有少量這方面的研究是在香港的中國籍人士當中進行的。在香港, B 型 (clade B) 及 E 型 (clade E) 愛滋病毒是平均分佈的。本研究的目的在於探討香港的中國籍患者的腦神經心理障礙及有關模範。

方法：本研究共包括了由一所本地主要的愛滋病專科中心招募的 119 名年齡由 18 – 50 歲的愛滋病患者。對照組是於香港紅十字會輸紅服務招募的 153 名年齡和受教育年期匹配的非患者。本研究對被試進行了一套共 12 個被認為能敏感地檢測愛滋病毒對腦部的影響的腦神經心理測試。

結果：因子分析評估了腦神經心理測試因子效度 (factorial validity) 並發現了 6 個腦神經範疇。總共有 24%的愛滋病患者被評級為整體腦神經認知能力受損。另外，HIV 的類型與腦神經受損的流行率以及腦神經認知樣式並無關係。雙階段群組集析 (two-stage cluster analysis) 在愛滋病患者及非患者中均分別得出了一個共 5 個群集的方案。結果分為 3 個分類，分別為整體腦神經認知受損、腦神經正常及輕微腦神經認知障礙。腦神經認知受損跟抑鬱情緒和醫療指標包括 CD4 和血液病毒載量均與腦神經認知受損並無關係。另外，整體腦神經認知受損者比無整受損者年齡較大。

總結： 香港的愛滋病患者有一個隱約並不一的腦神經認知障礙模式。本研究的結果與西方在 B 型 (clade B) 愛滋病患者當中的研究所得大概相同。這項研究亦突顯了愛滋病混合藥物對愛滋病有關的認知障礙的表現所帶來的影響。