

Two clusters of HIV-1 Subtype B infections in Hong Kong

Background

In 2006, two clusters of HIV-1 Subtype B infections, namely "Cluster A" and "Cluster B" were detected in Hong Kong by the Public Health Laboratory Centre using molecular technology.

The HIV genetic materials isolated from these cases displayed two clusters with similar nucleotide sequences. From laboratory analysis, these infections were suspected to be linked epidemiologically.

Two clusters detected

As of September 2006, upon testing of newly reported and prior blood samples, 34 individuals have been identified to fall within "Cluster A". All the HIV infections were HIV-1 Subtype B.

These cases have been reported to the Department of Health's HIV reporting system between November 2003 and September 2006. All were men aged from 22 to 54 at reporting. The median was 34.5. Twenty-Seven (79%) of them were Chinese and 28 were known to be Hong Kong Residents. These cases were mainly reported by Social Hygiene Clinics, public hospitals and private clinics/laboratories.

For "Cluster B", twelve HIV infections fell into this cluster. All HIV infections were HIV-1 Subtype B.

The twelve cases were reported to the HIV reporting system between May 2004 and September 2006, mainly by Social Hygiene Clinics, public hospitals and AIDS service organizations. All were Chinese male aged from 34 to 67 at reporting. The median age was 48.5. Eleven were known to be Hong Kong Residents.

Box 1: Comparing epidemiological data of two clusters

		Cluster A	Cluster B
Number of cases		34	12
Gender		all male	all male
Date of HIV report		Nov 03 - Sep 06	May 04 - Sep 06
Chinese proportion		27 (79%)	12 (100%)
Age range	(median)	22-54 (34.5)	34-67 (48.5)
Source of reporting			
Social Hygiene Clinics		9 (26%)	5 (42%)
Public hospitals/clinics/laboratories		8 (24%)	3 (25%)
Private hospitals/clinics/laboratories		7 (21%)	0 (0%)
AIDS Unit		5 (15%)	0 (0%)
AIDS Service Organisations		2 (6%)	3 (25%)
Hong Kong Red Cross Blood Transfusion Service		3 (9%)	1 (8%)
Risk	Homosexual	24 (71%)	6 (50%)
	Bisexual	0 (0%)	4 (33%)
	Heterosexual	7 (21%)	1 (8%)
	Blood contact	1 (3%)	0 (0%)
	Undetermined	2 (6%)	1 (8%)
CD4 at reporting (median)		14-901 (315) data available in 31 cases only	172-835 (260) data available in 11 cases only

Unprotected homosexual/bisexual contacts were the commonest risk factors for HIV infection in these two clusters. Twenty-four cases (70.6%) reported unprotected homosexual contact as the route of HIV transmission in Cluster A. Ten cases (83.3%) in Cluster B reported unprotected homosexual or bisexual contact as the route of HIV transmission. Unprotected heterosexual contact was the risk factor reported in 20.6% and 8.3% of Clusters A and B respectively.

The CD4 level, an indicator of immunity status, was available in 31 cases in Cluster A and 11 cases in Cluster B respectively. The CD4 level in Cluster A cases ranged from 14 to 901 with a median of 315. The CD4 level in Cluster B cases ranged from 172 to 835 with a median of 260. It suggested the immunity of most cases in two clusters were not yet largely compromised. These HIV infections were likely to be more recent ones.

The number of individuals affected was increasing over the years. For Cluster A, there were only two cases in 2003. It expands to 8 and 11 cases in 2004 and 2005 respectively. In the first 9 months of 2006, there were also 13 cases involved. Similarly, the cases of Cluster B were 2 and 5 in 2004 and 2005. Cluster B had 5 cases in the first 9 months this year. The MSM cases in clusters accounted for an increasing proportion of the overall reported MSM cases from 11% in 2004 to 15% in 2006 (Jan-Sep).

Implications

Against the background of an increase in reported HIV

Box 2. Free HIV Testing Service in Hong Kong

Department of Health's AIDS Hotline

Tel: 2780 2211

Social Hygiene Clinics, Department of Health

AIDS Concern

Tel: 2898 4411

C.H.O.I.C.E

Tel: 3188 9024

Hong Kong AIDS Foundation

Tel: 2513 0513

cases in recent years, it is anticipated that the two clusters will continue to grow in numbers as more new HIV diagnoses are being made and reported.

Hong Kong people should be more aware of the increased risk of contracting the virus. A press release was issued on 14 December 2006 to alert the public. Those who have a history of unprotected sex were called for an HIV test. The free HIV testing services in Hong Kong is listed in Box 2. Members of public were appealed to use a condom for safer sex, including anal, vaginal and oral intercourse.

Reference

1. Surveillance Office, Special Preventive Programme. A cluster of HIV infections in Hong Kong [FACTSHEET]. 2006 <http://www.info.gov.hk/aids/pdf/g153.pdf>
2. Special Preventive Programme, Social Hygiene Service. Hong Kong STD/AIDS Update. <http://www.info.gov.hk/aids/english/publications/stdaidsupdate.htm>



FACTSHEET (4) on HIV/AIDS Situation in Hong Kong [2006]

Prepared by

Surveillance Office, Special Preventive Programme

Centre for Health Protection, Department of Health

Telephone: 2780 8622 Fax: 2780 9580

Website: www.aids.gov.hk Email: aids@dh.gov.hk

December 2006