

ISSN 1672-5662
CN 11-4818/R

中国艾滋病性病

ZHONGGUO AIZIBING XINGBING



Q K 1 8 3 1 6 7 4

CHINESE JOURNAL OF AIDS & STD

2018年 第24卷 第6期 (总第177期)

Vol.24 No.6 (Serial No.177)



F5000

ISSN 1672-5662



9 771672 566187

中文核心期刊

中国科技核心期刊

百种中国杰出学术期刊

RCCSE中国核心学术期刊

美国化学文摘(CA)及数据库收录

国家科技部中国科技论文统计源期刊

中国性病艾滋病防治协会主办

CHINESE JOURNAL OF AIDS & STD

Published monthly

Since August 1995

Vol. 24 No. 6 June 26, 2018

Competent Authority

National Health and Family
Planning Commission of the People's
Republic of China

Sponsor

Chinese Association of STD &
AIDS Prevention and Control

Editor in Chief

SHEN Jie

Managing Director

LIU Xia

Editorial Department of Chinese
Journal of AIDS & STD
27 Nanwei Road, Xicheng District,
Beijing 100050, China
Tel: 86-010-63030828
Fax: 86-010-63030028
Email: aidsbjb@126.com
aids2006@sina.com

Printed by

October Printing(Beijing)Co., Ltd

Distribution

Domestic distributor:
Beijing Municipal Bureau of
Newspaper and Journal Distribution

Overseas distributor:
China International Book
Trading Corporation
P. O. Box 399, Beijing
100044, China
Code No. M 6559

Subscription

Post offices all over the country
Code No. 82-912

CSSN

ISSN 1672-5662
CN 11-4818/R

Contents in Brief

- Update on the AIDS/STD epidemic in China in April, 2018** NCAIDS, NCSTD, China CDC(535)
- Optimization and application of HIV antibody detection method based on dry blood spot samples** HE Xiaoxia, SU Bin, CHEN Huanyi, et al. (536)
- Sequence analysis of Pol region of HIV-1 CRF65_Cpx in China** ZHAO Shuai, FENG Yi, HONG Kunxue, et al. (540)
- Application value of XpertMTB/RIF in bronchoalveolar lavage fluid in diagnosis of tuberculosis in HIV-1 infected patients** CAI Kanru, PENG Qiaoli, WANG Wenfei, et al. (544)
- Naturally occurring resistance associated variations for HCV NS3 protease inhibitors among intravenous drug users co-infected with HIV-1 and HCV in Yunnan province** CHEN Min, CHEN Huichao, DAI Jie, et al. (548)
- Epidemiology and clinical characteristics of 5 937 HIV/AIDS and HBV co-infection in Yunnan province** ZHANG Jiangyan, RAN Huifen, LI Wu, et al. (553)
- Analysis of HIV/AIDS epidemic characteristics in Dongcheng district of Beijing** WANG Lianjun, WANG Yuanyuan(557)
- Relationship between the late diagnosed HIV/AIDS and infection of the spouses/partners in Guangxi** JIANG Yi, LI Yong, QIN Shansang, et al. (561)
- Association between sexual network characteristics and unprotected anal intercourse of MSM clients to a VCT clinic in Shenyang** ZHANG Yonghui, SHI Feng, CHU Zhenxing, et al. (565)
- Subtypes distribution and drug resistance among HIV-1 infected MSM in Guangzhou in 2015** WU Hao, ZHANG Yali, GAO Kai, et al. (569)
- High-risk behaviors and HIV infection among men who have sex with men in Baoan district of Shenzhen** SUN Qunlu, TU Yushan, QIAN Bing, et al. (573)
- Baseline of a cohort study in Mianyang on MSM aged between 15-24 years: HIV infection and influence factors** WANG Yi, LI Liuli, ZHOU Wanming, et al. (576)
- Current status of diagnosis and treatment of hepatitis C in hospitals** WEN Jing, GAO Yu, DING Guowei, et al. (581)
- Visual knowledge map analysis of the publications of "Chinese journal of AIDS & STD" (1999-2017)** JIA Feifei(585)
- Gonorrhoea and genital chlamydia trachomatis and associated risk factors in male clients to sexually transmitted disease clinics in Guangdong** CHEN Lei, WANG Cheng, XUE Yaohua, et al. (589)
- Referral services to syphilis screening positive cases provided by the hospitals without STDs diagnosis and treatment qualification** HUANG Xian, LI Shaoping, WEI Ning, et al. (593)
- Systematic review of the efficacy of integrated traditional Chinese Medicine and western medicine in treating AIDS** WANG Jian, LIANG Biyan, HE Liyun, et al. (597)
- Assessment of proficiency testing for HIV-1 recent infection** CHENG Huanyi, WANG Yuehua, HE Xiaoxia, et al. (602)
- HIV, syphilis and HCV infection in the clinic of voluntary counseling and testing during 2013-2016 in Shaebak district, Urumqi** YI Chunxia, LI Lei, HU Yamin(606)
- Knowledge and willingness of care about AIDS among nursing college students** LIU Lifang, LIU Lizhen, WU Weizi, et al. (609)
- Condom use and its influence factors among college students: based on social cognitive theory** LI Yanlin, YU Hongmei, YANG Fan, et al. (613)
- Prevalence of hepatitis C virus infection during 2005-2016 in Wuhan and analysis of case reporting quality** MA Hongfei, WANG Xia, CHEN Yanda, et al. (616)
- Effect of prevention of mother to child transmission of syphilis in Hunan from 2013 to 2016** GAO Jie, ZOU Ying, WU Yinglan, et al. (619)
- Current state, trend and response to HIV drug resistance** LI Jingyun(635)
- Research progress of the role of PKC-θ in HIV infection** LIU Xian, WANG Dengrong, XIAO Jian(639)
- A new view of CD4/CD8 ratio as an immune reconstitution marker in HIV-infected individuals** JING Fanhai, LYU Wei, LI Taisheng(643)

中国艾滋病性病

CHINESE JOURNAL OF AIDS & STD

月刊 1995年8月创刊 第24卷 第6期 总第177期 2018年6月26日出版

主 管

中华人民共和国国家卫生
和计划生育委员会

主 办

中国性病艾滋病防治协会
北京市西城区南纬路27号 100050

编辑出版

《中国艾滋病性病》杂志编辑部
北京市西城区南纬路27号 100050
电话:010-63030828
传真:010-63030028
Email:aids2006@sina.com
aidsbjb@126.com

主 编

沈洁

编辑部主任

刘霞

印 刷

北京市十月印刷有限公司
北京市通州区马驹桥民族
工业园9号 101102

发 行

国内:中国邮政集团公司
北京市报刊发行局
国外:中国国际图书贸易集团
有限公司
(北京399信箱,100044)
国外代号:M6559

订 购

全国各地邮电局
邮发代号:82-912

定 价

每期10.00元,全年120.00元

国际标准连续出版物号

ISSN 1672-5662

国内统一连续出版物号

CN 11-4818/R

2018年经作者授权后,版权归中国
性病艾滋病防治协会所有

除非特别声明,本刊刊出的所有文章
不代表本刊编委会的观点

目 次

疫情动态

2018年4月全国艾滋病性病疫情

··· 中国疾病预防控制中心 性病艾滋病预防控制中心 性病控制中心(535)

论 著

干血斑样本用于HIV抗体检测方法学优化与应用

··· 赫晓霞,栗斌,程焕义,等(536)

在我国传播的HIV-1 CRF65_Cpx亚型毒株 pol基因

序列特征 ······ 赵帅,冯毅,洪坤学,等(540)

支气管肺泡灌洗液 XpertMTB/RIF 检测在 HIV 感染者

肺结核诊断中的应用价值 ······ 蔡侃儒,彭巧丽,汪文斐,等(544)

静脉注射吸毒者 HIV-1/HCV 共感染的 HCV NS3 蛋白酶

抑制剂天然耐药相关变异分析 ······ 陈敏,陈会超,戴洁,等(548)

云南省5937例HIV/AIDS病人合并HBV感染的流行病学

及临床特征 ······ 张江艳,冉慧粉,李武,等(553)

北京市东城区HIV/AIDS病例特征分析 ······ 王联君,王媛媛(557)

晚发现HIV/AIDS病例和配偶/固定性伴传播关系的研究

··· 江毅,李勇,覃善芳,等(561)

沈阳市VCT门诊求询男男性行为者的性社会网络特征与

无保护肛交行为的关联性 ······ 张永惠,石锋,楚振兴,等(565)

广州市2015年男男性行为者HIV-1感染者亚型和耐药研究

··· 吴昊,张亚丽,高凯,等(569)

深圳市宝安区男男性行为者高危性行为和HIV感染现状

··· 孙群露,涂玉山,钱兵,等(573)

绵阳市15~24周岁男男性行为者HIV感染现状及影响因素

··· 王毅,李六林,周万明,等(576)

中国5省9家医院就诊人群中丙型肝炎患者诊疗现状研究

··· 闻静,高榆,丁国伟,等(581)

《中国艾滋病性病》杂志1999—2017年刊文可视化知识图谱

分析 ······ 贾飞飞(585)

广东省2016年男男性病门诊就诊者淋球菌和生殖道沙眼

衣原体感染状况及影响因素 ······ 陈磊,王成,薛耀华,等(589)

珠海市无性病诊疗资质医疗机构梅毒血清学阳性者的转介

服务研究 ······ 黄弦,李少平,韦宁,等(593)

中西医结合治疗艾滋病疗效的系统评价

··· 王健,梁碧颜,何丽云,等(597)

《中国艾滋病性病》杂志 第五届编辑委员会名单

名誉主编:戴志澄

主编:沈洁

顾问:张孔来 康来仪 邱泽奇

副主编:汪宁(常务)

(按姓氏笔画排序)

王健 王福生 李太生
吴昊 张林琦 张福杰
邵一鸣 尚红 顾恒
程锦泉

常务编委:(按姓氏笔画排序)

王晓春 王爱玲 卢洪洲
吕繁 伦文辉 刘霞
孙永涛 孙江平 李敬云
吴尊友 张彤 陈样生
金曦 庞宇 郑和义
赵红心 蒋岩 蔡卫平
廖苏苏 翟晓梅

编委:(按姓氏笔画排序)

王千秋 王开利 王立秋
王临虹 王哲 王璐
方利文 尹跃平 邢文革
邢辉 曲书泉 朱效科
刘水青 刘民 刘志民
刘康迈 刘惠 严延生
苏斌 李宏军 李现红
李勇 李惠琴 还锡萍
何纳 何盛华 沈银忠
沈智勇 宋玉霞 张北川
张庆宁 张灵麟 陈素良
陈琳 陈曦 林鹏
周林 赵敏 钟平
姚文清 贺雄 贾曼红
徐立然 徐杰 徐俊杰
凌华 龚向东 康殿民
梁国钧 傅继华 薦秀云
潘启超

责任编辑:

郑京婵 刘霞

校对:

王晓春 张蕊

中文审校:

陆德敏

英文审校:

张云

如有印装质量问题,请向本刊编辑部
调换

工作研究

- HIV-1 新发感染实验室检测能力的评估 程焕义,王月华,赫晓霞,等(602)
乌鲁木齐市沙依巴克区 2013—2016 年 VCT 门诊求询者 HIV 梅毒 HCV 感染情况 易春霞,李蕾,胡亚敏(606)
在校护理大专生艾滋病相关知识与护理意愿的调查 刘立芳,刘立珍,吴卫子,等(609)
基于社会认知理论分析大学生安全套使用的影响因素 李彦霖,余红梅,杨帆,等(613)
武汉市 2005—2016 年丙型病毒性肝炎病例报告及其
质量分析 马红飞,王夏,陈燕达,等(616)
2013—2016 年湖南省预防梅毒母婴传播工作效果分析 高洁,邹颖,吴颖岚,等(619)

短篇报道

- 中西药联合治疗 1 例艾滋病合并性病并发外阴部慢性溃疡 吴金霞(622)
珠三角地区性病门诊青少年就诊者性病 HIV 感染现状及
影响因素分析 王成,赵培祯,沈鸿程,等(624)
三亚市不同人群梅毒血清学筛查阳性者转介情况分析 朱考考,陈伟思,张择榕,等(626)
武汉市 2007—2016 年梅毒病例报告分析 石萍,郑熠,石卫东(628)

病例报告

- 光动力疗法联合 CO₂ 激光治疗宫颈尖锐湿疣 1 例 张莉雪,李秀芳(630)

经验交流

- 互联网背景下社戒社康模式中动态风险评估的思路与方法 韦焘,杨绍华,杨东霖,等(631)

综述

- HIV 耐药的现状 趋势与应对 李敬云(635)
蛋白激酶 C-θ 在 HIV 感染中的研究进展 刘显,王登嵘,肖健(639)
HIV 感染者免疫功能重建新视角:CD4/CD8 比值 荆凡辉,吕玮,李太生(643)

信息

- 作者更正 (623)

本期审稿专家:(按姓氏笔画排序)

王健 王璐 邢辉 伦文辉 刘民 李现红 李敬云
汪宁 沈银忠 张北川 罗巍 庞琳 赵敏 钟平
洪坤学 姚文清 徐杰 徐俊杰 龚向东 梁国钧 傅继华
焦艳梅

本刊得到深圳市疾病预防控制中心多年的支持

本刊投稿网址: <http://xbya.cbpt.cnki.net/>

期刊基本参数:CN11-4818/R * 1995 * m * A4 * 112 * zh * p * ¥10.00 * 2 600 * 32 * 2018-06

- [10] Trickey A, May MT, Schommers P, et al. CD4 : CD8 Ratio and CD8 Count as Prognostic Markers for Mortality in Human Immunodeficiency Virus-Infected Patients on Antiretroviral Therapy: The Antiretroviral Therapy Cohort Collaboration (ART-CC) [J]. Clin Infect Dis, 2017, 65(6): 959-966.
- [11] Mussini C, Lorenzini P, Cozzi-Lepri A, et al. CD4/CD8 ratio normalisation and non-AIDS-related events in individuals with HIV who achieve viral load suppression with antiretroviral therapy: an observational cohort study[J]. The Lancet HIV, 2015, 2 (3): e98-106.
- [12] Serrano-Villar I S, Sainz T, Lee SA, et al. HIV-infected individuals with low CD4/CD8 ratio despite effective antiretroviral therapy exhibit altered T cell subsets, heightened CD8⁺ T cell activation, and increased risk of non-AIDS morbidity and mortality[J]. PLoS Pathog, 2014, 10(5): e1004078.
- [13] 谢静, 邱志峰, 韩扬, 等. 未经抗病毒治疗的 HIV/AIDS 患者 CD8⁺ T 细胞 HLA-DR、CD38 表达水平与 CD4⁺ T 细胞计数的相关性研究[J]. 中华内科杂志, 2016, 55(1): 36-39.
- [14] Hocqueloux L, Avettang-Fenoel V, Jacquot S, et al. Long-term antiretroviral therapy initiated during primary HIV-1 infection is key to achieving both low HIV reservoirs and normal T cell counts[J]. The Journal of antimicrobial chemotherapy, 2013, 68 (5): 1169-1178.
- [15] Rosado-Sanchez I, Herrero-Fernandez I, Genebat M, et al. Thymic Function Impacts the Peripheral CD4/CD8 Ratio of HIV-Infected Subjects[J]. Clin Infect Dis, 2017, 64(2): 152-158.
- [16] Caby F. CD4⁺/CD8⁺ ratio restoration in long-term treated HIV-1-infected individuals[J]. AIDS, 2017, 31(12): 1685-1695.
- [17] Serrano-Villar S, Caruana G, Zlotnik A, et al. The effects of maraviroc versus efavirenz in combination with zidovudine/lamivudine on the CD4/CD8 ratio in treatment-naive HIV-infected individuals[J]. Antimicrobial agents and chemotherapy, 2017, 61 (12): AAC.01763-17.
- [18] Serrano-Villar S, Zhou Y, Rodgers AJ, et al. Different impact of raltegravir versus efavirenz on CD4/CD8 ratio recovery in HIV-infected patients[J]. The Journal of antimicrobial chemotherapy, 2017, 72(1): 235-239.
- [19] Lichtenstein KA, Armon C, Nagabhushanam V, et al. A pilot study to assess inflammatory biomarker changes when raltegravir is added to a virologically suppressive HAART regimen in HIV-1-infected patients with limited immunological responses[J]. Antiviral therapy, 2012, 17(7): 1301-1309.
- [20] Caby F, Guihot A, Lambert-Niclot S, et al. Determinants of a Low CD4/CD8 Ratio in HIV-1-Infected Individuals Despite Long-term Viral Suppression[J]. Clin Infect Dis, 2016, 62(10): 1297-1303.
- [21] Sainz T, Serrano-Villar S, Diaz L, et al. The CD4/CD8 ratio as a marker T-cell activation, senescence and activation/exhaustion in treated HIV-infected children and young adults[J]. AIDS, 2013, 27(9): 1513-1516.
- [22] Lu W, Mehraj V, Vyboh K, et al. CD4 : CD8 ratio as a frontier marker for clinical outcome, immune dysfunction and viral reservoir size in virologically suppressed HIV-positive patients[J]. J Int AIDS Soc, 2015, 18:20052.
- [23] Fuster F, Vargas JI, Jensen D, et al. CD4/CD8 ratio as a predictor of the response to HBV vaccination in HIV-positive patients: A prospective cohort study [J]. Vaccine, 2016, 34 (16): 1889-1895.
- [24] Serrano-Villar S, Gutierrez C, Vallejo A, et al. The CD4/CD8 ratio in HIV-infected subjects is independently associated with T-cell activation despite long-term viral suppression[J]. The Journal of infection, 2013, 66(1): 57-66.
- [25] Taylor JM, Fahey JL, Detels R, et al. CD4 percentage, CD4 number, and CD4:CD8 ratio in HIV infection: which to choose and how to use[J]. Journal of acquired immune deficiency syndromes, 1989, 2(2): 114-124.
- [26] Menozzi M, Zona S, Santoro A, et al. CD4/CD8 ratio is not predictive of multi-morbidity prevalence in HIV-infected patients but identify patients with higher CVD risk[J]. J Int AIDS Soc, 2014, 17(4 Suppl 3): 19709.
- [27] Bernal E, Serrano J, Perez A, et al. The CD4 : CD8 ratio is associated with IMT progression in HIV-infected patients on antiretroviral treatment[J]. Journal of the International Aids Society, 2014, 17(3): 19723.
- [28] Clifford GM, Rickenbach M, Lise M, et al. Hodgkin lymphoma in the Swiss HIV Cohort Study[J]. Blood, 2009, 113 (23): 5737-5742.
- [29] Triplette M, Attia EF, Akgun KM, et al. A Low Peripheral Blood CD4/CD8 Ratio Is Associated with Pulmonary Emphysema in HIV[J]. PLoS One, 2017, 12(1): e0170857.
- [30] Serrano-Villar S, Perez-Elias MJ, Dronda F, et al. Increased risk of serious non-AIDS-related events in HIV-infected subjects on antiretroviral therapy associated with a low CD4/CD8 ratio [J]. PLoS One, 2014, 9(1): e85798.
- [31] Jain V, Hartogensis W, Bacchetti P, et al. Antiretroviral therapy initiated within 6 months of HIV infection is associated with lower T-cell activation and smaller HIV reservoir size[J]. J Infect Dis, 2013, 208(8): 1202-1211.
- [32] Gandhi RT, McMahon DK, Bosch RJ, et al. Levels of HIV-1 persistence on antiretroviral therapy are not associated with markers of inflammation or activation[J]. PLoS Pathog, 2017, 13(4): e1006285.
- [33] Tae-Wook Chun JSJ, Punita Pandya, Claire W, et al. Relationship between the Size of the Human Immunodeficiency Virus Type 1 (HIV-1) Reservoir in Peripheral Blood CD4⁺ T Cells and CD4⁺:CD8⁺ T Cell Ratios in Aviremic HIV-1-Infected Individuals Receiving Long-Term Highly Active Antiretroviral Therapy [J]. The Journal of Infectious Diseases, 2002, 185(11,1): 1672-1676.
- [34] Yue Y, Wang N, Han Y, et al. A higher CD4/CD8 ratio correlates with an ultralow cell-associated HIV-1 DNA level in chronically infected patients on antiretroviral therapy: a case control study[J]. BMC Infect Dis, 2017, 17(1): 771.