

综述

支气管肺泡灌洗在肺部真菌感染中的诊断价值

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摘要: 近年来,肺部真菌感染的发病率不断增加,尽管培养是真菌诊断的金标准,但其耗时较长,临床应用受限。支气管镜下肺泡灌洗技术方便、快捷、创伤小,通过对应用该技术所获得的支气管肺泡灌洗液行细胞学检查、常规染色、真菌抗原和分子学技术检测已是快速诊断某些真菌感染的重要手段之一。

关键词: 灌洗 真菌 细胞学 抗原检测 肺

Diagnostic value of Bronchoalveolar Lavage in Fungal Infections

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Abstract: The incidence of pulmonary fungal infection increased recently.Fungal culture is gold-standard for diagnosis but restricted for time-comsuming.Bronchoscopic lavage is safe,rapid and minimally invasive to obtain bronchoalveolar lavage fluid (BALF).Cytologic analysis,antigen detection and molecula technique to BALF becoming important for rapid diagnosis of fungal infections.

Keywords: lavage fungus cytology antigen detection lung

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参考文献:

[1] 中华医学会呼吸病学分会.支气管肺泡灌洗液细胞学检测技术规范(草案)[J].中华结核和呼吸杂志,2002,25(7):390-391.

[2] Boersma WG,Erjavec Z,van der Werf TS,et al.Bronchoscopic diagnosis of pulmonary infiltrtes in granulocytopenic patients with hematologic malignancies: BAL versus PSB and PBAL[J].Rospir Med,2007,101(2):317-325.

[3] Huang L,Morris A,Limper AH,et al.ATS Pneumocystis Workshop P.An official ATS workshop summary: recent advances and future directions in pneumocystis pneumonia(PCP)[J].Proc Am Thorac Soc,2006,3(8):655-664.

[4] Jacobs JA,Dieleman MM,Coroelissen EI,et al.Bronchoalveolar lavage fluid cytology in patients with Pneumocystis carinii pneumonia[J].Acts Cytol,2001,45(3):317-326.

[5] Procop GW,Hadda S,Quinn J,et al.Detection of Pneumocystis jiroverci in respiratory specimens by four staining methods [J].J Clin Microbiol,2004,42(7):3333-3335.

[6] Larsen HH,Huang L,Kovacs JA,et al.A prospective,blinded study of quantitative touch-down palymerase chain reaction using oral-wash samples for diagnosis of pneumecystis pneumonia in HIV-infected patients[J].J Infect Dis,2004,189(9):1679-1683.

[7] de Oliveira A,Unnasch TR,Crothers K,et al.Performance of a molecular viability assay for the diagnosis of pneumocystis pneumonia in HIV-infected patients[J].Diagn Microbiol Infect Dis,2007,57(2):169-176.

[8] Kralovic SM,Rhodes JC.Utility of routine testing of brenchoalveolar lavage fluid for cryptecoccal antigen[J].J Clin Microbiol,1998,36(10):3088-3089.

[9] Takahashi T,Goto M,Kanda T,et al.Utility of testing bronchoalveolar lavage fluid for cryptoceccal ribosomal DNA[J].J Int Med Res,2003,31(4):324-329.

[10] Wood GC,Mueller EW,Croce MA,et al.Candida sp.isolated from bronchoalveolar lavage:clinical significance in critically ill trauma patients[J].Intensive Care Med,2006,32(4):599-603.

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- [11] Pfaller MA, Diekema DJ. Epidemiology of invasive candidiasis: a persistent public health problem[J]. Clin Microbiol Rev, 2007, 20(1): 133-163.
- [12] Ascioglu S, Rex JH, de Pauw B, et al. Defining opportunistic invasive fungal infections in immunocompromised patients with cancer and hematopoietic stem cell transplants: an international consensus[J]. Clin Infect Dis, 2002, 34(1): 7-14.
- [13] Verdaguier V, Walsh TJ, Hope W, et al. Galactomannan antigen detection in the diagnosis of invasive aspergillosis[J]. Expert Rev Mol Diagn, 2007, 7(1): 21-32.
- [14] Musher B, Fredricks D, Leisenring W, et al. Aspergillus galactomannan enzyme immunoassay and quantitative PCR for diagnosis of invasive aspergillosis with bronchoalveolar lavage fluid[J]. J Clin Microbiol, 2004, 42(12): 5517-5522.
- [15] Pfeiffer CD, Fine JP, Safdar N. Diagnosis of invasive aspergillosis using a galactomannan assay: a metaanalysis[J]. Clin Infect Dis, 2006, 42(10): 1417-1427.
- [16] Nguyen MH, Jaber R, Leather HL, et al. Use of bronchoalveolar lavage to detect galactomannan for diagnosis of pulmonary aspergillosis among nonimmunocompromised hosts[J]. J Clin Microbiol, 2007, 45(9): 2787-2792.
- [17] Meersseman W, Lagrou K, Maertens J, et al. Galactomannan in bronchoalveolar lavage fluid: a tool for diagnosing aspergillosis in intensive care unit patients[J]. Am J Respir Crit Care Med, 2008, 177(1): 27-34.
- [18] Francesconi A, Kasai M, Petraitiene R, et al. Characterization and comparison of galactomannan enzyme immunoassay and quantitative real-time PCR assay for detection of aspergillus fumigatus in bronchoalveolar lavage fluid from experimental invasive pulmonary aspergillosis[J]. J Clin Microbiol, 2006, 44(7): 2475-2480.
- [19] Martynowicz MA, Prakash UB. Pulmonary blastomycosis: an appraisal of diagnostic techniques[J]. Chest, 2002, 121(3): 768-773.
- [20] Wheat LJ, Conces D, Allen SD, et al. Pulmonary histoplasmosis syndromes: recognition, diagnosis and management[J]. Semin Respir Crit Care Med, 2004, 25(2): 129-144.
- [21] Gutierrez ME, Canton A, Connolly P, et al. Detection of Histoplasma capsulatum antigen in Panamanian patients with disseminated histoplasmosis and AIDS[J]. Clin Vaccine Immunol, 2008, 15(4): 681-683.
- [22] Hage CA, Davis TE, Egan L, et al. Diagnosis of pulmonary histoplasmosis and blastomycosis by detection of antigen in bronchoalveolar lavage fluid using an improved second-generation enzyme-linked immunoassay[J]. Respir Med, 2007, 101(1): 43-47.

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1. 范静平, 陈争明. 耳鼻咽喉真菌性疾病[J]. 中国真菌学杂志, 2012, (2): 65-69
2. 苗琦, 曹永兵, 张石群, 林辉, 姜远英. 纳米材料的抗真菌活性及其机制研究进展[J]. 中国真菌学杂志, 2012, (2): 111-115
3. 吕运通, 王文岭. 真菌极性生长结构的研究现状[J]. 中国真菌学杂志, 2012, (2): 116-120
4. 张石群, 林辉, 苗琦, 刘伟, 曹永兵, 姜远英. 覆盆子提取物联合唑类药物抗真菌活性研究[J]. 中国真菌学杂志, 2012, 7(1): 4-7
5. 程娟娟, 潘敏, 韩志君, 葛小丽. 儿童真菌性肠炎患者血清IL-27增高及其意义[J]. 中国真菌学杂志, 2012, 7(1): 24-26
6. 冯宏伟, 陈萍. 伏立康唑治疗深部真菌感染的观察及护理[J]. 中国真菌学杂志, 2012, 7(1): 27-28
7. 李梦, 廖万清. 侵袭性真菌感染治疗新进展[J]. 中国真菌学杂志, 2012, 7(1): 47-51
8. 乔祖莎, 冯文莉. 克柔念珠菌对抗真菌药物耐药机制的研究进展[J]. 中国真菌学杂志, 2012, 7(1): 55-58
9. 吴绍熙, 郭宁如. 转化医学真菌学可更好为人类服务[J]. 中国真菌学杂志, 2011, 6(6): 321-323
10. 康道现, 冉玉平, 尹斌, 代亚玲. 转化医学真菌学实例——直接提取DNA鉴定菌种及体外药敏试验指导诊治面部难辨癣[J]. 中国真菌学杂志, 2011, 6(6): 324-327
11. 刘芳, 桑红, 胡文星, 孔庆涛, 王雪连, 王高峰, 张敏, 邓德权, 谢其美. 浅部真菌感染和变态反应性皮肤病相关性研究[J]. 中国真菌学杂志, 2011, 6(6): 344-349
12. 金海, 陈和忠, 李志刚, 杨立信, 赵铁军, 徐志云. 肺真菌病15例外科手术治疗经验[J]. 中国真菌学杂志, 2011, 6(6): 350-351
13. 袁乃芬, 孙艳华, 郝宏艺, 张萌, 林元珠. 茄病镰刀菌感染致角膜溃疡1例[J]. 中国真菌学杂志, 2011, 6(6): 355-357
14. 杨庆琪, 赵广, 刘雯, 那爱华, 成玉. 复方环丙酮胺治疗浅部真菌病的疗效观察[J]. 中国真菌学杂志, 2011, 6(6): 363-366
15. 马天, 宋月星, 邹先彪. 真菌的组织病理学特殊染色[J]. 中国真菌学杂志, 2011, 6(6): 367-369