

Bölüm 42

ACİNETOBACTER BAUMANNİİ'YE BAĞLI NEKROTİZAN YUMUŞAK DOKU ENFEKSİYONU

Hatice Gül SARIKAYA⁵⁴

GİRİŞ

Acinetobacterbaumannii(*A.baumannii*),Moraxellaceae familyasına ait aerobik, katalaz pozitif, oksidaz negatif, hareketsiz, nonfermentatif, gram-negatif bir kokobasildir. İlk defa 1911 yılında Beijerinck tarafından *Micrococcuscalco-aceticus* olarak tanımlanmıştır (1). O tarihte birkaç isme sahip olduktan sonra 1950'lerden itibaren *Acinetobacter* olarak bilinmeye başlanmıştır (2,3). Doğal yaşam alanı toprak ve su olup gıdalardan,eklembacıklılardan ve çevresel ortamlardan izole edilmiştir (4). *Acinetobacter* türleri insanların özellikle cilt, oral kavite, solunum yolu ve gastrointestinal sistemin endojen bakteriyel florasının bir parçası olabilir. Ayak parmak arası,koltuk altı ve kasık bölgesi gibi nemli alanlar cilt kolonizasyonu için uygun ortam sağlayabilir(5).

Acinetobacter türleri arasında en sık ve en önemli klinik tablolara yol açan etken *A.baumannii*'dir. Bağışıklık sisteminin baskılanmış olması, uzun süreli yoğun bakım ünitesinde yatış , mekanik ventilatör ile solunum destek tedavisi alma ve geniş spektrumlu antibiyotik tedavisi altında olma, kalıcı ya da geçici santral venöz katater takılması, üriner kateterizasyon gibi invaziv girişimlerin uygulanması *Acinetobacter* enfeksiyonu için olası risk faktörleridir (6,7). Solunum yolu enfeksiyonu, idrar yolu enfeksiyonu, bakteriyemi, sekonder menenjit, osteomyelit, septik artrit, endokardit, cilt ve yumuşak doku enfeksiyonu, nekrotizan fasiit, cerrahi alan enfeksiyonu, septisemi olmak üzere çok sayıda nozokomiyal enfeksiyonlara neden olabilmektedir (8,9).

⁵⁴ Doktor Öğretim Üyesi, Tekirdağ Namık Kemal Üniversitesi Tıp Fakültesi Anesteziyoloji ve Reanimasyon Anabilim Dalı, hsarikaya76@hotmail.com

başına kolistin kullanılabileceği gibi kombine tedavilerde antimikrobiyal ajanların sinerjik etkileri olabileceği göz önünde bulundurulmalıdır.

Anahtar kelimeler: *Acinetobacter baumannii*, yumuşak doku enfeksiyonu, çoklu antibiyotik direnci

KAYNAKLAR

1. Beijerinck MW. Pigmenten alsoxydatie productengevorm door bacterien. Versl Koninklijke Akad Wetensch 1911;19:1092-103.
2. Schreckenberger PC, Daneshvar MI, Weyant RS, Hollis DG. *Acinetobacter*, *Achromobacter*, *Chryseobacterium*, *Moraxella*, and other nonfermentative gram-negative rods. In: Murray PR, Baron EJ, Jorgensen JH, Landry ML, Pfaller MA, eds. Manual of clinical microbiology. 9th ed. Washington, DC: ASM Press, 2007:770-802.
3. Euzéby JP. Dictionnaire de bactériologie vétérinaire. (Accessed February 19, 2008, at <http://www.bacterio.cict.fr/bacdico/aa/acinetobacter.html>.)
4. Fournier PE, Richer H. The epidemiology and control of *Acinetobacter baumannii* in healthcare facilities. *Clin Infect Dis* 2006;42:692-9.
5. Kloos WE, Musselwhite MS. Distribution and persistence of *Staphylococcus* and *Micrococcus* species and other aerobic bacteria on human skin. *Appl Microbiol* 1975; 30:381-5.
6. N. Martins, I.S. Martins, W.V. de Freitas, J.A. de Matos, A.C.G. Magalhaes, V.B.C. Girao, R.C.S. Dias, T.C. de Souza, F.L.P.C. Pellegrino, L.D. Costa, C.H.R. Boasquevisque, S.A. Nouér, L.W. Riley, G. Santoro-lobes, B.M. Moreira. Severe infection in a lung transplant recipient caused by donor transmitted carbapenem-resistant *Acinetobacter baumannii*. *Transpl. Infect. Dis.* 2012; 14 : 316-20.
7. C. Zhao, W. Xie, W. Zhang, Z. Ye, H. Wu. Mechanism of drug resistance of carbapenem-resistant *Acinetobacter baumannii* and the application of a combination of drugs in vitro. *Zhonghua Shaoshang Za Zhi* 2014;30 : 166-70.
8. M.E. Falagas, P. Kopterides, Risk factors for the isolation of multi-drug-resistant *Acinetobacter baumannii* and *Pseudomonas aeruginosa*: a systematic review of the literature. *J. Hosp. Infect.* 2006;64: 7-15.
9. R. Gaynes, J.R. Edwards, National Infections Surveillance System. Overview of nosocomial infections caused by gram-negative bacilli. *Clin. Infect. Dis.* 2005; 41: 848-54.
10. Shih MJ, Lee NY, Lee HC, et al. Risk factors of multi drug resistance in nosocomial bacteremia due to *Acinetobacter baumannii*: a case-control study. *J Microbiol Immunol Infect* 2008;41:118-23.
11. Valentine SC, Contreras D, Tan S, et al. Phenotypic and molecular characterization of *Acinetobacter baumannii* clinical isolates from nosocomial outbreaks in Los Angeles County, California. *J Clin Microbiol* 2008;46:2499-507.
12. Villegas MV, Hartstein Al. *Acinetobacter* outbreaks, 1977-2000. *Infect Control Hosp Epidemiol* 2003;24:284-95.
13. Vallenet D, Nordman P, Barbe V, et al. Comparative analysis of *Acinetobacter* genomes for three lifestyles. *PLoS ONE* 2008;3:e1805.
14. Dauner DG, May JR, Steele JC. Assessing antibiotic therapy for *Acinetobacter baumannii* infections in an academic medical center. *Eur J Clin Microbiol Infect Dis* 2008; 27: 1021-4.
15. Hujer, K. M., A. M. Hujer, E. A. Hulten, S. Bajaksouzian, J. M. Adams, C. J. Donskey, D. J. Ecker, C. Massire, M. W. Eshoo, R. Sampath, J. M. Thomson, P. N. Rather, D. W. Craft, J. T. Fishbain, A. J. Ewell, M. R. Jacobs, D. L. Paterson, and R. A. Bonomo. 2006. Analysis of antibiotic

- resistance genes in multidrug-resistant *Acinetobacter* sp. Isolates from military and civilian patients treated at the Walter Reed Army Medical Center. *Antimicrob. Agents Chemother.* 2006; 50:4114-4123.
16. Chang-Ro Lee, Jung Hun Lee, Moonhee Park, Kwang Seung Park, Il Kwon Bae, Young Bae Kim, Chang-Jun Cha, Byeong Chul Jeong, Sang Hee Lee. Biology of *Acinetobacter baumannii*: Pathogenesis, Antibiotic Resistance Mechanisms, and Prospective Treatment Options. *Frontiers in Cellular and Infection Microbiology.* 2017 ;7:55:1-35.
 17. Gordon NC, Wareham DW. A review of clinical and microbiological outcomes following treatment of infections involving multidrug-resistant *A. Baumannii* with tigecycline. *J Antimicrob-Chemother* 2009;63:775- 80.
 18. Garcia-Garmendia JL, C. Ortiz-Leyba J, GarnachoMontero J, et al. Risk factors for *A. Baumannii* nosocomial bacteremia in critically ill patients: a cohort study. *Clin Infect Dis* 2001;33:939-46.
 19. Cui H, Hao S, Arous E. A distinct cause of necrotizing fasciitis: *Aeromonas veronii biovarsobria*. *Surg Infect (Larchmt)* 2007;8:523-8.
 20. Anaya DA, Dellinger EP. Necrotizing soft-tissue infection: diagnosis and management. *Clin Infect Dis* 2007;44:705-10
 21. Uckay I, Sax H, Harbarth S, et al. Multi-resistant infections in repatriated patients after natural disasters: lessons learned from the 2004 tsunami for hospital infection control. *J Hosp Infect* 2008;68:1-8.
 22. Aronson, N. E., J. W. Sanders, and K. A. Moran. 2006. In harm's way: infections in deployed American military forces. *Clin. Infect. Dis.* 43:1045- 51.
 23. Biancofiore, G., C. Tascini, M. Bisa, G. Gemignani, M. L. Bindi, A. Leonildi, G. Giannotti, and F. Menichetti. 2007. Colistin, meropenem, and rifampin in a combination therapy for multi-drug resistant *Acinetobacter baumannii* multi focal infection. *Minerva Anestesiol.* 73:181-185.
 24. Charnot-Katsikas A, Dorafshar AH, Aycok JK, et al. Two cases of necrotizing fasciitis due to *Acinetobacter baumannii*. *J Clin Microbiol* 2009;47:258-63.
 25. Griffith ME, Ceremuga JM, Ellis MW, Guymon CH, Hospenthal DR, Murray CK. *Acinetobacter* skin colonization of US Army soldiers. *Infect Control Hosp Epidemiol* 2006; 27:659-61.
 26. Guerrero DM, Perez F, Conger NG, Solomkin JS, Adams MD, Rather PN, et al. *Acinetobacter baumannii*-associated skin and soft tissue infections: recognizing a broadening spectrum of disease. *Surg Infect (Larchmt)* 2010;11:49-57.
 27. Hawley JS, Murray CK, Griffith ME, McElmeel ML, Fulcher LC, Hospenthal DR, et al. Susceptibility of *Acinetobacter* strains isolated from deployed U.S. military personnel. *Antimicrob Agents Chemother* 2007;51:376-8.
 28. Rashid OM, Nagahashi M, Takabe KJ. Management of massive soft tissue defects: the use of INTEGRA® artificial skin after necrotizing soft tissue infection of the chest. *Thorac Dis* 2012;1(4):331-5.