Editorial

Healthcare Associated Infection with Rapidly Growing Mycobacteria : An Emerging Health Problem

Rapidly growing mycobacteria (RGM) are nontuberculous species of mycobacteria having ability to grow on culture media within 7 days of post-inoculation. These atypical mycobacteria are widely distributed in nature and have been isolated from soil, tap water and natural water.[1] Among RGM, M. fortuitum, M. chelonae and M. abscessus have emerged as important human pathogens being responsible for a number of healthcare associated infection (HAI).[2,3,4,5] These bacteria are not a part of skin commensal, yet loss of skin integrity is very important in infection.[2] These hydrophobic RGM have the ability to form biofilm in the environment for their survival. Hence, these are difficult to eradicate with regular disinfectants like glutaraldehyde, chlorine etc. Shedding of these organisms from biofilm in water pipe or device may contaminate them.[1] Improper sterilization of endoscopes and laparoscopic and surgical instruments thus may cause post-procedural wound infection. Contaminated gention violet, rinsing solution, antiseptic solution, injectable medications, unsterile surgical instruments or poor wound care, like cleaning post-operative wound with contaminated tap water may be the source of infection in hospital settings.[6] Clinical categories of HAI by RGM includes respiratory tract infections, infections related to hemodialysis, peritonitis associated with CAPD, injection associated cutaneous and joint infections and post-surgical infections.[7] Post- operative wound infections are the most predominant category. Such infections caused by RGM generally appear 4-6 weeks after the procedure, because of their longer incubation period, with painful, draining subcutaneous nodules at the infection sites, not responding to antibiotics used for pyogenic infection. Diagnosis is delayed due to relatively mild and indolent symptoms[4] and also due to the fact that Ziehl – Neelsen staining and mycobacterial culture are not routinely done for surgical wound.[2] Laboratory diagnosis of RGM can be done by Ziehl-Neelsen staining and mycobacterial culture of specimen collected from infection site. Collection of specimens should be done by avoiding potential sources of contamination, like tap water. Successful treatment of RGM requires administration of antibiotics as determined by susceptibility testing and in some cases addition of surgical debridement.[5] It has been reported that conventional anti-tubercular drugs are ineffective against RGM. Studies shows susceptibility of several RGM species to clarithromycin, cefoxitin, amikacin, sulphonamides ranges from 96-100%.[8] To prevent recurrence, antibiotic treatment should be continued for at least 3-6 weeks after the wound heals.[8,9] As because laboratory identification of RGM needs special settings and longer time and due to scarcity of data regarding antimicrobial susceptibility of these organisms in our country, prevention of infection is most important. Careful surveillance by hospital

infection control team, attention to adequate high –level disinfection of medical devices, use of sterile reagents and biologicals will prevent most outbreaks.[7]

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