The Neglected and Often Ignored: Nontuberculous Mycobacteria

Sir,

Even though M. tuberculosis continues to kill thousands of people yearly, we should not forget that another new problem may arise as we are neglecting nontuberculous mycobacteria (NTM), frequently being isolated since many years. The frequency of NTM pulmonary disease has been reported to be increasing on several continents.^[1] Although the number of cases of tuberculosis is decreasing in the United States, NTM are being recovered with increasing frequency from both immunocompromised and immunocompetent patients. The high prevalence populated areas, immunocompromised including HIV, chronic pulmonary disease, and middle-aged women are at risk. NTM are now being increasingly identified to be the cause of skin and soft tissue infections, especially in postoperative cases.

The isolation rate of NTM from India has been reported ranging from 0.5% to 8.6%. The NTM isolation rate of 3.5% has been reported among the seronegative patients. An accurate picture of their geographical distribution is not known. It is reported that the prevalence of NTM is very high in south India as observed in the Chingleput BCG trial by Sivasankari et al NTM have been isolated and identified in many studies in Amritsar,^[2] Bangalore,^[3] Gujarat,^[4] Maharashtra,^[5] etc. The incidence of NTM is still unknown, even though being isolated from the cultures it has been neglected or considered as a contaminant, thus not noted. NTM infections have frequently been overlooked in developing countries like India with endemic TB due to nonspecific clinical manifestations, unfamiliarity of clinicians with mycobacteria, and inadequacy of laboratory services.

In our mycobacterial laboratory at P.D. Hinduja National Hospital and MRC, Mumbai, a tertiary care center, we have been isolating mycobacteria since 2005 with advanced technology of MGIT 960 with good capacity of growth and isolating mycobacteria better than the radioactive BACTEC 460 TB System. The incidence of mycobacterial isolation at our center has been found to be 1% (2005), 1.2% (2006), 1.8% (2007), 3.5% (2008), and 1.2% till July 2009, which is less than 5%, but it is important to note that it is increasing. The chances of missing NTM in India are high due to poor laboratory settings and inadequate equipments making its prevalence apparently low. We analyzed that, of the 114 NTMs collected during a period (November 06–May 08), 99 (90, definite cases; 9, probable cases as per ATS) were clinically relevant. Like us many laboratories would be isolating mycobacteria, but how many do clinically co-relate and understand their importance?

Modern technology has led to great improvements in mycobacteriology laboratory procedures, particularly in detection, identification, epidemiologic strain typing, and drug susceptibility testing. However, its only when clinicians and laboratories work together can clinical outcomes be optimized.^[2]

If an NTM is isolated, it is, therefore, important to clinically correlate and then come to a conclusion whether it is a contaminant or the culprit.

Mugdha N Jani, Camilla S Rodrigues, Ajita P Mehta

Research Department, P.D. Hinduja National Hospital and MRC, Mumbai, India

Address for correspondence:

Dr. Camilla Rodrigues, E-mail: dr_crodrigues@hindujahospital.com

REFERENCES

- Marras TK, Daley CL. Epidemiology of human pulmonary infection with nontuberculous mycobacteria. Clin Chest Med 2002;23: 553-67.
- Aggarwal M, Jindal N, Arora R, Aggarwal N, Arora S. Non tuberculous mycobacteria: The changing scenario at Amritsar. Ind J Tub 1993; 40:25-7.
- Chauhan MM. Non-tuberculous mycobacteria isolated from an epidemiological survey in rural population of Bangalore district. Ind J Tub 1993;40:195-7.
- Trivedi SS, Desai SG, Trivedi SB. Non-tuberculous lung mycobacteriosis in Gujarat. Ind J Tub 1986;33:175-8.
- Hardas UD, Jayaraman VS. Differential identification of mycobacteria. Ind J Tub 1984;31:11-2.

