P125

BATTERIOLOGIA

STREPTOCOCCUS PNEUMONIAE: UNCOMMON PATHOGEN OF URETHRITIS

C. Crocillà [1], G. Amarù [1], C. Solimine [1], E. Peyronel [1], P. Fresi [1], F. Menotti [2], S. Comini [2], M.C. Cuomo [2], R. Sparti [2], V. Allizond [2], A.M. Cuffini [2], G. Banche [2]

[1]*Chemical clinical and microbiological analysis laboratory, Infermi Hospital, ASL TO3, Rivoli, Turin*

[2]*Department of Public Health and Pediatrics, Microbiology Section, University of Torino, Turin*

INTRODUZIONE

Streptococcus pneumoniae is not a common agent of urinary tract infections (UTIs); indeed, literature data about its isolation in genitourinary samples of both adults and children are limited. Here, we report 13 cases of S. pneumoniae isolated from male urethral samples.

METODI

From June 2018 to May 2019, a total of 281 urethral swabs was transferred to the Microbiology Laboratory of the 'Infermi Hospital' (Rivoli, Turin) and examined for suspected urethritis. Specimens were analyzed for the presence of opportunistic bacteria, fungi, Mycoplasma spp and Trichomonas spp with cultural examination and for Chlamydia trachomatis and gonococci by strand displacement amplification. All the isolates were tested for antimicrobial susceptibilities to many widely used antibiotics. Resistant ones were confirmed by manual susceptibility testing.

RISULTATI

57,3% of cases was negative to all researched pathogens. The other 42,7% was microbiologically positive: in details, bacteria or fungi were isolated in pure culture in 105 samples, whereas the remaining 12,5% was characterised by coinfections. Remarkably, out of 120 positive subjects, S. pneumoniae was detected in 13 men (10,83%) with symptoms of urethritis. Examination of their urethral specimens revealed the presence of Gram-positive cocci, confirmed as S. pneumoniae based on colony morphology, alpha haemolysis, Gram stain and optochin susceptibility. In three patients microscopy and coltural analysis highlighted a polimicrobic infection caused by S. pneumoniae with Staphylococcus haemolyticus, or Streptococcus agalactiae, or Ureaplasma urealyticum, respectively. The majority of analyzed S. pneumoniae was resistant to erythromycin and clindamycin. In some isolates, further resistance was noted; in particular, one case presented multi-resistance to different classes of antibiotics.

CONCLUSIONI

S. pneumoniae is infrequently isolated from urethral specimens. However, our study described an unusual high number of urethritis cases caused by pneumococci in a relatively short period (11 months) in an enclosed area (ASL TO3). S. pneumoniae as etiologic agent of urethritis was confirmed by its isolation in pure culture in 10 cases out of 13. As S. pneumoniae is a commensal of the upper respiratory tract, orogenital sexual contact has been suggested to be responsible for direct inoculation of the microorganism in the male urethral mucosa. With the increase in sexually transmitted diseases and variable human sexual behaviors, the significance of S. pneumoniae as a sexually transmitted pathogen should be more considered and it would be useful to look for S. pneumoniae during routine screening for UTIs.