

NOSOCOMIAL INFECTIONS CAUSED BY SELECTED GRAM-NEGATIVE BACTERIA AT THE ANAESTHESIOLOGY AND INTENSIVE CARE UNIT OF THE TEACHING HOSPITAL IN BRNO

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SUMMARY

In the course of 13 months we monitored the occurrence of strains of *P. mirabilis*, *P. vulgaris*, *Kl. pneumoniae*, including its indole-positive variant and *S. marcescens* in patients of the Anaesthesiology and Intensive Care Unit (AICU) of the Teaching Hospital (TH) in Brno. Out of 436 patients hospitalized at that time, 95 (21.8 %) were colonized or infected by one or all of the bacterial species studied. Out of those 95 patients, 48 (50.5 %) came to the AICU already colonized or infected by one of the studied agents mostly from other wards of the TH or from other hospitals. At the AICU, 32 of them were reinfected or superinfected by one, two or all of the bacterial species studied. Of the 436 hospitalized patients, 79 (18.1 %) were newly infected, reinfected or superinfected. By serotyping, proticene production and proticene sensitivity (P-S) typing and phage typing we demonstrated the endemization of some P-S types and phage types of the bacterial species studied and their spreading among the contemporaneously hospitalized patients. The endemic strains of *P. mirabilis* included P-S types P5/S6, S7, S9 and P5/S6, S7; P0/S9; P1/S2, S11 and P1/S11. The two biotypes of *Klebsiella*, i.e. *K. pneumoniae* and *K. oxytoca*, were identically sensitive to some of the phages 1, 2, 3, 8 and 106, particularly to phages 2 and 3, or 2, 3 and 106. The isolated strains of *Serratia* were absolutely resistant to the 26 bacteriophages used.

Key words: *Proteus* spp., *Klebsiella* spp., *S. marcescens*, serotyping, proticene production and proticene sensitivity (P-S) typing, phage typing, nosocomial infections

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