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Bacteria Forming a Resident Flora of the Skin as a Potential Source of Opportunistic Infections

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Abstract

Along with progress of medicine, contribution that opportunistic bacteria make in nosocomial infections increases. Coagulase-negative staphylococci are these multiresistant strains which often cause this kind of infections. But more and more frequently other genera of bacteria are isolated. The main source of them is first and foremost the hospitalized patient's endogenous flora *e.g.* from their skin, because transmission of bacteria from this source is very effective. Analysis was concerned with bacteria that were recovered repeatedly from the skin of young, healthy men during period of five months. Composition of resident bacteria, after removing transients was evaluated. The number of microorganisms per 1 cm^2 patients' skin was a constant value but different for each patient. Newly composed media enabled exact isolation and qualitative analysis of all groups of expected bacteria. Isolated microorganisms represented three main groups: sensitive to novobiocin staphylococci, microaerophilic rods from *Propionibacterium* genus and coryneform bacteria. Aside from quantitative differences in total bacteria number, significant differences in contribution of aerobic and anaerobic flora living on patient skin were observed. A persistent although not predominant population occurring on the skin of all patients in similar number (average 2%), were coryneform bacteria. They mainly belonged to the *Corynebacterium* genus, and 84.7% of them were the lipophilic species. These bacteria deserve special attention because among such species isolated from nosocomial infections, multiple antibiotic resistance of unknown origin was described.

Key words: resident flora, human skin