

STUDY OF THE ROLE OF STAPHYLOCOCCUS EPIDERMIDIS IN HUMAN PATHOLOGY. THIRD REPORT: CLINIC-ETIOLOGICAL INVESTIGATION OF SEPTICAEMIAE

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1 In the recent years the number of scientific reports confirming the etiological role of *St. epidermidis* in human pathology is growing constantly (1, 3). Septicaemiae are conditions resulting of numerous diseases due to various microorganisms. One of most often isolated microbes is *St. epidermidis* which is very regularly accepted to be a contaminant microflora.

During the last few years our department carries out systematical investigations of the biological properties of those staphylococci and certain part of them are the object of the present study.

Material and methods. Discussion

During 1975—78 the isolated *St. epidermidis* in febrile states of patients with various diseases is thoroughly investigated. Bacteriological analysis of 1031 haemocultures of 960 patients (exclusively children) is done. The diseases are: bronchopneumonia, sepsis, Dyspepsia. The isolated staphylococcus-strains were studied after the rules of the International Subcommittee of Taxonomy of Staphylococci and Micrococci (4). The biological typing of the strains was carried out by using the scheme of Baird-Parker A. C. (1965). The antibiotic-sensitiveness was followed by using the disc-method. $\frac{2}{3}$ of the species — 706 (68.48%) were sterile; various microbes were isolated out of 325 (31.52%) materials. The clinic-etiological study of the febrile states in children shows highest percent (24.15%) of isolated microorganisms from *Staphylococcus*-types: *St. epidermidis* (20.76%) and *St. aureus* (3.39%). Coagulase-negative staphylococci were isolated out of 214 haemocultures of 136 patients which was 20.5% of the total number investigated materials and 65.5% of the positive haemocultures. 58 (42.6%) out of all 136 positive haemocultures. *St. epidermidis* was only once isolated and it was accepted as contaminant flora. The rest 78 (57.4%) cases showed more often isolation of this microorganism: twice — 28 (35.9%), thrice — 19 (24.4%), four times — 31 (39.6%).

We studied several cases with septicaemia caused by *St. epidermidis* which confirmed its etiological role. The isolation of the microorganism (several times) from a monoculture, biotypical similarity of the strains isolated from different clinical materials of only one patient, positive effect of the antibiotal therapy and antistaphylococcus immunotherapy were all basic indexes showing the possible role of *St. epidermidis* as an infectious agent. 50 of 960 febrile states showed three and four times isolated *St. epidermidis* (5.2%) which confirmed its etiological role.

The isolated cultures of *St. epidermidis* were determined as Ist, III_{dr} and IVth biotype or the group of untyped ones. 66.04% were the typed

cultures and the strains of Ist and IVth biotype. Certain interest acquire the results of the study of antibiotic-sensitiveness. The high percent of the strains with numerous (multiple) drug resistance (97.17%) is considerable. The low rank of polyresistance show only (8 (7.77%) cases; moderate rank — 32 (31.07%) and high rank of polyresistance — 63 (61.16%). Most expressed resistance is registered towards penicillin (94.31%), streptomycin (82.08%), erythromycin (81.13%), while most expressed sensitiveness is registered towards novobiocin (95.28%) and kanamycin (76.4%).

The cultures of *St. epidermidis* from various biotypes possess different sensitiveness towards the investigated antibiotics.

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ИССЛЕДОВАНИЕ РОЛИ СТАФИЛОКОКУС ЭПИДЕРМИДИС В ПАТОЛОГИИ ЧЕЛОВЕКА

Ц. Димитров

РЕЗЮМЕ

Исследована этиологическая роль Стафилококкус эпидермидис в патологии человека. Обращается внимание на большое число случаев с септицемией, которые были исследованы, биотипированы и изучены по отношению к антибиотикочувствительности и резистентности.

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