

COMPARISON OF MICROBIOLOGICAL RESULTS FROM SWAB AND TISSUE CULTURE IN PATIENTS WITH DIABETIC FOOT

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Aim: Infection of diabetic foot is usually polymicrobial and bacteria are often multiresistant. Before antibiotic treatment the bacterial culture for microbiological differentiation is mandatory. In pilot study of patients with diabetic foot treated in surgical department we collected two samples of swab and tissue culture of same patient for microbiologic research.

Methods: In comparison we take 15 pairs of swab and tissue samples from 14 patients from August to December 2008. Both samples were collected after debridement with analgesics, without local anaesthesia. The aseptic technique was used and the border of diabetic ulcer was taken. Conditions for keeping and transportation were the same for both samples. Microbiological assessment was done in the laboratory of the Institute of Health Care.

Results: In microbiological samples we defined one to four aerobic bacteria. Most frequently isolated bacteria were *Staphylococcus aureus*, then *Pseudomonas aeruginosa*, *Enterobacter cloacae*, *Morganella morganii* and others. In five cases anaerobic bacteria were concomitant, most frequently *Prevotella*. Microbiological results between swab and tissue culture were different in four cases.

Conclusions: First data indicated that swab culture is still the most appropriate method for simple and noninvasive collections for microbiologic culture. Tissue sample collection needs surgical technique, which is more demanding and is not so pleasant to the patient. Microbiological results indicate some differences, so the study will be continued for comparison with a higher number of samples.