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Symposium of The Danish Microbiological Society, November 9th, 2010

Poster: Microbial communities in different biofilm related infections

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The objective of this study was to compare the microbial community in different biofilm-related diseases: endocarditis (n=18), chronic wounds (n=14), urinary catheter (n=24), central venous catheters (n=18) and joint prosthesis-related (n=22) infections. The microbial communities were investigated using traditional culture-dependent methods and a range of culture-independent molecular methods (the full 16S-rDNA-approach and qPCR-assays). Polymicrobial communities were detected in approx. 67% and 25% of the investigated samples by molecular methods and cultivation techniques, respectively. All urinary catheters and chronic wound samples were polymicrobial as opposed to only 25% of endocarditis samples. *Staphylococcus* spp were identified in 50% of the infections included in this study (n=96), including all chronic wounds and most prosthesis samples. *Pseudomonas* spp were associated with 15% of the samples but found in all infection types. *Stenotrophomonas* spp were abundant on catheter and prosthesis biofilm, while *Streptococcus* spp were primarily detected in endocarditis and prosthesis biofilms.

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