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Association of lectin pathway proteins with intra-abdominal Candida infection in high-risk surgical intensive-care unit patients. A prospective cohort study within the fungal infection network of Switzerland

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Human studies on the role of mannose-binding lectin (MBL) in patients with invasive candidiasis have yielded conflicting results. We investigated the influence of MBL and other lectin pathway proteins on Candida colonization and intra-abdominal candidiasis (IAC) in a cohort of high-risk patients.; Prospective observational cohort study of 89 high-risk intensive-care unit (ICU) patients. Levels of lectin pathway proteins at study entry and six MBL2 single-nucleotide polymorphisms were analyzed by sandwich-type immunoassays and genotyping, respectively, and correlated with development of heavy Candida colonization (corrected colonization index (CCI) $\geq$0.4) and occurrence of IAC during a 4-week period.; Within 4 weeks after inclusion a CCI $\geq$0.4 and IAC was observed in 47% and 38% of patients respectively. Neither serum levels of MBL, ficolin-1, -2, -3, MASP-2 or collectin liver 1 nor MBL2 genotypes were associated with a CCI $\geq$0.4. Similarly, none of the analyzed proteins was found to be associated with IAC with the exception of lower MBL levels (HR 0.74, p = 0.02) at study entry. However, there was no association of MBL deficiency (<0.5 μg/ml), MBL2 haplo- or genotypes with IAC.; Lectin pathway protein levels and MBL2 genotype investigated in this study were not associated with heavy Candida colonization or IAC in a cohort of high-risk ICU patients.
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