According to results of the molecular methods, we thought that a C. albicans outbreak had occurred in the neonatal pediatric unit, due to contamination of TPN solution" Guducuoglu et al (2016).

Abstract:

BACKGROUND: The most frequently isolated fungi in patients using TPN belongs to the Candida genus. Various infections including venous catheter infections, fungemia, endocarditis and ophthalmitis may be encountered.

OBJECTIVE: Upon growth of Candida in the blood cultures from the pediatric (neonatal) unit of our hospital, a surveillance was performed in this unit and involving the health care workers. Clonal relationships of the isolates were investigated with molecular tests.

METHODS: Blood samples obtained from the patients in pediatric neonatal unit were studied with automatized blood culture . Yeast isolates from environmental surveillance cultures (TPN solutions, hands of healthcare personnel, ıtagθre, etc) and patients were identified as C. albicans with conventional methods and ID 32 C and ATB TM Fungus 3 (Biomerieux, France) kits. Clonal similarity was determined by using AP-PCR as initial method and we have also typified all strains by the method of REP-PCR (diversilab system,bioMırieux). Finally; Pulsed Field Gel Electrophoresis (PFGE) was used for confirmation.

RESULTS: C. albicans was isolated in blood cultures of seven patients. Similar antifungal susceptibility patterns were observed in all isolates. AP-PCR and REP-PCR showed that the C. albicans isolates grown in the TPN solution and from the patients' blood cultures were clonally same strains. PFGE analysis further confirmed this clonality.

CONCLUSION: According to results of the molecular methods, we thought that a C. albicans outbreak had occurred in the neonatal pediatric unit, due to contamination of TPN

solution.

Full Text

Reference:

Guducuoglu, H., Gultepe, B., Otlu, B., Bektas, A., Yildirim, O., Tuncer, O. and Berktas, M. (2016) Candida albicans outbreak associated with total parenteral nutrition in the neonatal unit. Indian Journal of Medical Microbiology. 34(2), p.202-7.

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