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Reference:

Galloway, D.P., Troutt, M.L., Kocoshis, S.A., Gewirtz, A.T., Ziegler, T.R. and Cole, C.R. (2014) Increased Anti-Flagellin and Anti-Lipopolysaccharide Immunoglobulins in Pediatric Intestinal Failure: Associations With Fever and Central Line-Associated Bloodstream Infections. Journal of parenteral and enteral nutrition. June 4th. .

Associations with fever and Central Line-Associated Bloodstream Infections  
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Abstract:

Background: Central line-associated bloodstream infections (CLABSIs) pose a significant challenge in the lives of patients with intestinal failure (IF). We hypothesized that plasma immunoglobulins against flagellin (FLiC) and lipopolysaccharide (LPS) would be able to differentiate CLABSIs from nonbacterial febrile episodes and that levels would increase with infection and decline following appropriate antibiotic treatment.

**Materials and Methods:** Patients with IF, due to short bowel syndrome, between the ages of 3 months and 4 years of age, were recruited at Cincinnati Children’s Hospital Medical Center. Anti-FLiC and anti-LPS plasma antibody levels were measured in 13 children with IF at baseline, during febrile events, and also following treatment with antibiotics. These were also measured in 11 healthy children without IF who were recruited as controls.

**Results:** Plasma anti-FLiC IgA levels increased during febrile episodes in all patients with IF (baseline mean of 1.10 vs febrile episode mean of 1.32 optical density units, respectively;  $P = .046$ ). Neither plasma anti-FLiC nor anti-LPS IgA or IgG levels distinguished CLABSI from nonbacterial febrile episodes compared with baseline levels. Compared with controls, patients with IF had significantly higher plasma levels of anti-FLiC and anti-LPS IgA at baseline.

**Conclusion:** Plasma anti-FLiC IgA antibody levels rise during febrile episodes but do not differentiate between nonbacterial febrile illnesses and CLABSIs in pediatric IF. However, the upregulation of these antibodies in IF suggests the baseline systemic presence of Gram-negative bacterial products.

Other intravenous and vascular access resources that may be of interest (External links - IVTEAM has no responsibility for content).

Guide for intravenous chemotherapy and associated vascular access devices from Macmillan. CancerUK IV chemotherapy information.

