News and Views

C-section, formula may disrupt 'good' gut bacteria in babies

NEWS

Being born by cesarean section or babies who were exclusively or even partially formula-fed has been tied to higher risks for various health problems in children, and now a new study finds these babies also have fewer "good" bacteria in their digestive tract.^[1]

(RE)VIEWS

There is increasing concern over rising rates of cesarean delivery and insufficient exclusive breastfeeding of infants

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in developed countries. In a study carried out in Canada, it has been found that formula-fed infants had increased richness of species, with over representation of Clostridium difficile compared to breast-fed ones. Escherichia, Shigella, and Bacteroides species were underrepresented in infants born by cesarean delivery. These findings provide new evidence for the effects of delivery mode and infant diet as determinants of this essential microbial community in early life.^[2]

It is also hypothesised that a distortion in normal microbiota composition, is associated with late onset sepsis in preterm infants.^[3]

A disturbed microbiota during early infancy has been linked to the risk of developing infectious, inflammatory and allergic diseases later in life. Thus, it has been suggested that, incorporating specific probiotics for the development of the infant's gut microbiota may form a beneficial possibility for future infant feeding purposes.^[4]

Early intestinal colonization with Lactobacilli and Bifidobacteria support the concept of their ability to modify the gut microbiota with beneficial roles like reduction in the risk of cancer due to their capacity to decrease β -glucoronidase and carcinogen levels. Thus, these agents (referred to as "probiotics") are being tried to be employed in modern nutrition habits (with so-called functional foods). Since they are normal residents of the microbiota in humans, whether such gut derived probiotic should be commercially employed is a matter of debate.^[5]

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