



Opinion

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The Prevention of Crohn's Disease by Breastfeeding



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The centers for disease control and prevention's (CDC) web site states "While you cannot prevent Crohn's disease, you can take medications to reduce the severity" [1]. This is a statement of perception. It is not one supported by the scientific data that renders the protective effect of breast feeding as a medical fact.

Medicine is a pseudoscience. In physics or mathematics, the answer to a given equation is always the same. In medicine, the answers to medical conditions are in a state of constant flux due to changes in perception derived from experimentation and epidemiologic data. Prevailing medical facts/truths are but error-up-to-date, but they are the governing facts.

A means of preventing Crohn's disease has been known for almost two decades. With one exception, retrospective epidemiologic studies of risk factors for Crohn's disease have shown breastfeeding as conferring relative protection effect against the future development of Crohn's disease [2-10]. The exception had excluded all the cases of pediatric Crohn's disease [11]. With a share geographic area, when two subpopulations, one that breast feeds and one that doesn't, are analyzed, the disparity in the incidence of Crohn's disease between the two groups is found to be evident [12-15]. In third world countries where breast feeding is an economic necessity, Crohn's disease is literally un-documented until the imposition of a western diet [16-19]. Taken in totality, the data in evidence makes the case that Crohn's disease is a preventable disease entity.

What has slowed acceptance of breast feeding conferring relative protection against the subsequent development of Crohn's disease is the lack of an explanation as to why it does so. Nevertheless, that breast feeding confers relative protection is a fact that stands independent of why.

The WHY breastfeeding is protective has its answer in the Hruska postulate and its extension into the Hruska Paradigm [20]. At birth and shortly thereafter, a neonate's acquired immunity is absent or effectively underdeveloped. What has

been documented is that a mycobacterium, Mycobacterium axium subspecies Para tuberculosis (MAP), has been isolated from samples of pasteurized milk, infant formula, and powdered milk [21-29].

If a newborn without effective acquired immunity is infected with a large enough inoculum of MAP, the elicited pro-inflammatory response to MAP's antigenic array becomes fixed within immunological memory. A similar mechanism had been theorized to explain the persistence of selected anti-tissue immune responses in congenital rubella. In time, frequent sustained MAP challenges focally destroy mucosal integration at MAP's points of attachment and antigen processing. The loss of mucosal integrity results in the small bowel invasion by the previously excluded gastrointestinal microbiota. The net result of an infectious disease becoming an immune mediated disease, coupled with invasion of the small bowel by the bacteria within the gastrointestinal tract, constitutes Crohn's disease [20,30].

It has been argued that the prime mechanisms by which Crohn's disease has reached epidemic proportion are women abandoning breastfeeding for infant formula and the spreading adulteration of milk and milk products by MAP. In 2005, it was documented that 49% of 51 brands of infant formula manufactured by 10 different countries contained MAP DNA [26,28].

Understand the events that combine to produce Crohn's disease and the "medical truth" that breastfeeding confers relative protection against the future development of Crohn's disease have created an ethical imperative: pregnant women be given the information that allows her to make a fully informed decision as to how her newborn will receive milk-based nutrition within the first four weeks of life.

The Rio Declaration on Food Safety, Principle 15, states "In order to protect the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full knowledge

shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation". The World Trade Organization Agreement on Sanitary and Phytosanitary Measures, Article 5.7, allows regulatory measures "where relevant scientific evidence is insufficient to demonstrate the safety of a product or commodity".

The risk-benefit ratio embedded in advocating that mothers should breastfeeding until acquired immunity is established argues for adherence to the "precautionary principle".

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