

PROBIOTICS FOR INFANTILE COLIC

Despite years of research, the cause of infantile colic is still shrouded in mystery. There is a growing body of evidence to suggest that altered gut microbiota play a role in this distressing though self-limited disorder. An increase of *Proteobacteria* and a decline of *Bifidobacteria* have been noted in the stools of colicky babies. It is hypothesized that the *Proteobacteria* cause excessive fermentation of carbohydrates and proteins resulting in excessive gas production. Bifidobacteria also change the levels of immunomodulators like butyrate, beta defensive 2 and fecal calprotectin. Butyrate has been shown to modulate intestinal transit times, and visceral and central pain perception as well as produce an anti-inflammatory effect in the gut.

A new randomized controlled study in 80 infants from Italy has shown that *Bifidobacterium animalis subsp. lactis* when given orally daily for 28 days was effective in reducing duration of colic in 80% of the study group versus 31% of the placebo group. There was also an increase in fecal butyrate and calprotectin, though that could be tested only in a small number of patients. A previous study with this probiotic along with low lactose, partially hydrolyzed formula had shown good results in reducing colic. This study was done in exclusively breast fed babies, and the intervention may become a valuable addition in the practicing pediatricians' armory against the frustrating problem of the colicky infant.

(Aliment Pharmacol Ther. 2019 Dec 3)

THE SURROGACY REGULATION BILL

India has long been considered the surrogacy capital of the world. Before 2008, commercial surrogacy was rampant in India. There were no legal guidelines till the case of a Japanese baby conceived by surrogacy in India hit the headlines in August 2008. The Japanese parents came to India to conceive by surrogacy but got divorced before the baby was born. In the ensuing confusion was born the seeds of the Surrogacy Bill in India.

The Surrogacy Regulation Bill was finally passed by the Lok Sabha in August 2019 and was then referred to the Rajya Sabha. In this bill commercial surrogacy has been completely prohibited. All foreign nationals, non-resident Indians or Persons of Indian Origin are forbidden to avail commercial surrogacy in India.

It allows altruistic surrogacy to Indian married couples who are childless. The surrogate mother and the couple who want to have children must be close relatives. Homosexuals, single parents or live-in couples are not allowed to have children by surrogacy. Couples who already have children will also not be allowed to use surrogacy services unless the child is severely physically or mentally challenged. A lady can be a surrogate mother only once.

Commercial surrogacy has been considered as the root cause of the prevalent exploitation, misdoings and irregularities, and the Bill is an attempt to reduce this. However, many feel the Bill seriously impinges on the rights of single parents, the LGBT community and couples in a live-in relationship. The Rajya Sabha has now referred it to a 23-member select committee for further refinements.

(The Times of India 2019 Nov 22)

VOXELOTOR RECEIVES APPROVAL FOR SICKLE CELL ANEMIA

Voxelotor is a drug which aims to correct the root cause of the problems in sickle cell anemia. The drug inhibits polymerization of sickle hemoglobin. The FDA approved it after the phase 3 randomized controlled trial published this year. In the study, 274 patients were randomized to either Voxelotor or placebo. After 24 weeks, there was significant improvement in hemoglobin, and reduction in reticulocyte counts and indirect bilirubin - there were no serious adverse effects. It is now approved for use in patients 12 years and above.

The drug was discovered in 2017 and is an excellent example of basic science research reaching the bedside in a relatively short time. This was because it was granted fast track status and accelerated approval in view of the huge impact it will make on the lives of so many patients. However, caveats remain. Risk of delayed oxygen delivery in the brain leading to silent infarcts needs to be evaluated. Its use in variant SCDs such as sickle-thal and sickle cell disease with hemoglobin below 7 g/dL have also not been studied.

As with all new drugs, the initial blush of enthusiasm may well fade with the reality of unanticipated side-effects, if we are not vigilant.

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