

## L.reuteri DSM 17938 in the Management of Infantile Colic in Indian Children

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Received 02 July 2020, Accepted 01 Sept 2020, Available online 02 Sept 2020, Vol.8 (Sept/Oct 2020 issue)

### Abstract

Infantile colic is a benign problem which has an unknown aetiology without any correlation to demography, socio-economic status, gestational age or feeding (bottle Vs breast). More recently it has been included under the conundrum of functional gastrointestinal disorder according to the Rome IV criteria. The global incidence is unknown and various causes have been postulated which may trigger Infantile colic and altered gut microbiota has been quoted as a major cause. Various treatment methods have been tried and use of the probiotic *Lactobacillus reuteri* DSM 17938 has shown promising results along with some infants responding to dietary manipulation in the mother or changing to hydrolysed formula. Chiropractic or osteopathic manipulation, infant massage, swaddling, acupuncture, or herbal supplements have shown no scientific evidence in the management

**Keywords:** Infantile colic, *L reuteri* DSM 17938, FGID, Rome IV.

### Background

Infantile colic is a stressful and tiresome experience for both the newborn and their parents alike (1,2,3). *L reuteri* DSM 17938 is a probiotic that has shown promising results in the management of Infantile colic without any side effects. Good safety profile, scientific evidence are the main strengths of this novel therapy and the first observational study in India is certainly interesting and promising.

Infantile colic is a distressing and disturbing event during the newborn period for the parents and infants alike. Although multiple hypothesis has been proposed about the origin of pain, no treatment has been fully successful, even partially (4,5,6). We envisaged to find out the best possible, evidence based, nutrition-based treatment options that are available in the current Indian scenario. This study is a prototype in this area of developing interest in Indian pediatric population (7,8,9).

### Methodology

Infantile colic is a common consultation in the pediatric out-patients (diagnosis made based on Rome IV criteria). Babies who match the criteria were carefully analysed for concurrent medical problems. Verbal informed consent was obtained from parents before commencing the treatment plan. Patients were counselled and therapy commenced with follow up advice.

### Results

We share a case series of 6 (six) children who all had symptoms of infantile colic and were treated simultaneously with 1 (one) uniform treatment and a nutritional intervention, i.e., *L. reuteri* (DSM17938), 5 drops (one hundred million CFU) once per day. 2 (two) patients underwent nutritional intervention with therapeutic infant formula and 4 (four) continued breast feeding. Our Observation from doing Intervention(s), showed that all (n=6) Infants who had Probiotics (*L reuteri* DSM 17938) with or without nutritional intervention showed resolution of symptoms by Day 11 (Mean 11.5 days-depicted by reduction in crying time, improvement in stool consistency) and a normal weight gain (15-20 grams per day) (10,11,12)

### Conclusion

Although our observation is on a small cohort, existing evidence support the use of other adjuvants such as probiotics (*L reuteri* DSM 17938) in the management of infantile colic. Lack of clinical response and poor evidence do not support the use of therapies like Dill oil, Fennel oil, Simethicone. Strong evidence, Excellent safety profile and multiple clinical studies make *L reuteri* (DSM 17938) along with or without nutritional intervention, the ideal choice in the management of infantile colic. We understand the limitations of our study, but this the first of its kind to be reported in India (13-16).

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DOI: <https://doi.org/10.14741/ijmcr/v.8.5.1>

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