Evidence Synthesis Team (EST) – Review BYTES, February 2018 No.18

Treating children with recurrent abdominal pain: what is the evidence for dietary, pharmacological and psychosocial interventions?

What did we find?

- Probiotics, Cognitive Behavioural Therapy (CBT) and hypnotherapy may be effective in reducing pain in the short term.
- There was no convincing evidence to support the use of drugs.
- There was insufficient evidence to assess whether yoga or other forms of dietary exclusion and restriction were effective for treating RAP.
- There is sufficient evidence to suggest that clinicians may want to consider probiotics, CBT and hypnotherapy as part of the overall treatment for children with RAP.

Why did we do this review?

Recurrent abdominal pain (RAP) is common among children, and it has been suggested that 4-25% of children suffer from pain that interferes with their daily life. RAP is pain that has no other identifiable cause, and is defined as 1 episode of pain per week for 2 months. It is a diagnosis given once all other serious conditions have been ruled out. RAP is associated with other symptoms including headaches, limb pain, pallor, and vomiting, and leads to school absences, hospital admissions and a higher incidence of appendectomies. The cause of RAP is unclear, and symptoms often

continue into adulthood. Parents have often tried everything they can think of before taking their child to the doctor.

Clinicians are uncertain about how best to help children suffering from RAP. There is no consensus about effective treatment, and no guidelines to follow, so there is an inconsistent approach to treatment. A wide range of clinicians would be interested to learn the best ways to help children with RAP.

Various different treatments for RAP have been suggested. There are 3 main approaches: dietary interventions, pharmacological interventions, and psychosocial interventions. Dietary interventions (excluding or restricting a food group/ingredient, or increasing the intake of one) include probiotics, a high fibre diet, a fructose restricted diet, and a low FODMAP (certain subtypes of carbohydrate) diet. Pharmacological

interventions (drugs) include Analgesics, Dicyclomine, Pizotifen, peppermint oil,

and herbal extracts. Psychosocial interventions (any intervention based on psychological or behavioural therapy, also called mind/body interventions) include CBT, hypnotherapy, guided imagery, yoga, and written self-disclosure (participants write down their thoughts and feelings in a quiet space with no follow up).

The review aimed to examine the evidence for the effectiveness of dietary, pharmacological and psychosocial interventions for treating RAP.

How did we do this review?

The research was a systematic review. This brings together all existing research on a particular question. We were only interested in Randomised Controlled Trials (RCTs), which are the best form of evidence to determine if a treatment is effective. We searched 13 health databases for relevant studies and found a total of 55 papers, including 3572 children in 15 countries. Of these papers, 21 investigated dietary interventions, 15 investigated drugs, and 19 investigated mind/body interventions.

Quality of the research and cautionary notes

We found relatively little high quality evidence to guide treatment. Many of the trials either involved a small number of children, or had weaknesses in study design, and there were very few that looked at longer-term effects.

What next?

The evidence for the effectiveness of probiotics, CBT and hypnotherapy is based largely on shorter-term outcomes. Further research is required to assess whether reductions in pain are maintained over the long term. For probiotics, we need more evidence about individual strains and dosages. For CBT and hypnotherapy, we need to know more about how best to deliver the treatment, and for how long.

Contact details and further information about the published paper:

The PenCLAHRC EST is part of Evidence Synthesis and Modelling for Health Improvement (ESMI), at the University of Exeter Medical School. Further information about this research is available on the University of Exeter Medical School website:
http://medicine.exeter.ac.uk/esmi/workstreams/

The full version of the systematic review of these findings is published in the Journal of Paediatric Gastroenterology and Nutrition. You can access the paper here:
https://journals.lww.com/jpgn/Abstract/publishahead/Recurrent_Abdominal_Pain_in_Children___Summary.96887.aspx

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