DIAGNOSIS OF DIENTAMOEBIA FRAGILIS. ETIOPATHOGENIC ROLE IN GASTROINTESTINAL SYMPTOMS IN PAEDIATRIC PATIENTS

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BACKGROUND:

Dientamoeba fragilis is a flagellated protozoa with a questioned role in gastrointestinal pathology but it is increasingly related to digestive symptoms with an unknown real prevalence. The use of molecular tests would improve its diagnosis.

METHODS:

- ✓ We present a **prospective case-control study** on *D. fragilis* in children aged 1-17 years from October 2017 to February 2018 in the Hospital Germans Trias i Pujol, Badalona, Spain.
- ✓ Stool samples from children with gastrointestinal symptoms (exposed) and without symptoms (not exposed) in whom other etiologies have been excluded were collected.
- ✓ A **real-time PCR for *D. fragilis*** (Viasure *D. fragilis*, Zaragoza, Spain) was performed.
- ✓ Data about diarrhea, abdominal pain, abdominal distension, weight loss, peripheral eosinophilia were recorded and have been analyzed for a plausible statistical association with *D. fragilis* infection.

RESULTS:

A total of 63 samples were tested for the presence of *D. fragilis*:

- ❖ Out of the exposed group, 11 were positive (32%) and 23 were negative (67%).
- ❖ In the not exposed group, 6 were positive (20%) and 23 negative (79.3%).
- ❖ The **Odds Ratio of the exposed compared to the not exposed was 1.8**
- ❖ Abdominal pain was the most frequent symptom (9/11) followed by meteorism (6/11). Diarrhea (4/11), abdominal distension (3/11) and peripheral eosinophilia (2/11) were less frequent. None of the patients had weight loss.

CONCLUSIONS:

Detecting DNA of *D. fragilis* in stool samples using PCR is regarded as the gold standard diagnostic test. Although the small sample size, **the results suggests that there is a positive tendency between intestinal symptoms and *D. fragilis* infection.**

Treatments for the eradication of the parasites could be justified for the improvement of the symptoms in children. Further works are required to establish the ethiopathogenic role of *D. fragilis* in gastrointestinal disorders.