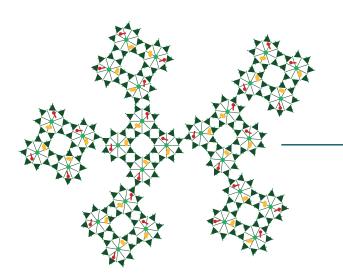


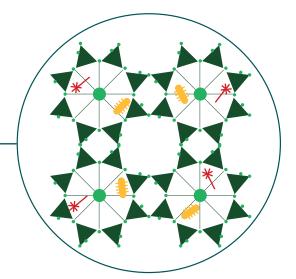
SAFETY AND EFFICACY OF

PURIFIED CLINOPTILOLITE

IN PATIENTS WITH IBS-D



Clinoptilolite Lattice and Channel-ways



Binding activity occurs within channel pores (red and yellow icons), at ion exchange centers (central green dot), and via surface adsorption (small green dots).



RESEARCH QUESTION

Can the unique binding properties associated with purified natural clinoptilolite positively impact symptoms of IBS-D?

BACKGROUND

Irritable bowel syndrome (**IBS**) is a highly prevalent, functional gastrointestinal disorder that lacks effective treatment options. Diarrhea-dominant IBS (**IBS-D**) results in abdominal pain and increased stool frequency and urgency. It can also significantly impact quality of life. Clinoptilolite is a natural zeolite, a porous mineral born out of changing temperature and pressure conditions of volcanic rock. It possesses high adsorptive and absorptive qualities. Clinical trials investigating clinoptilolite suggest it may relieve symptoms of gastric discomfort.

METHODS

| 30 | 12 | 2 | 3 x |
|----------|-------|-------|------------|
| PATIENTS | WEEKS | GRAMS | DAILY |

Thirty patients were randomized to treatment with either purified clinoptilolite or placebo for 12 weeks. Patients assigned to receive clinoptilolite were given two grams, three times daily.

RESULTS



Median number of days with diarrhea per week decreased by **2.4 days** in the clinoptilolite group compared to **0.3 days** in control.

After four weeks, **36%** of patients receiving clinoptilolite reported complete or considerable relief compared to **0%** in the control group.



94% of patients receiving clinoptilolite reported improvement in daily abdominal pain.



Clinoptilolite treatment resulted in **greater diversity** in stool microbiome compared to the control group.

CONCLUSION

Clinoptilolite is a safe and effective option to relieve some symptoms of IBS including abdominal pain and stool consistency over a prolonged period.



