

An exclusive whole-food Tasty&Healthy diet induces endoscopic and radiological healing in Crohn's disease when used as maintenance treatment: results from the MyTasty clinical trial



Luba Plotkin^{*1,14}, Yonat Aharoni-Frutkoff^{*1}, Zivia Shavit¹, Gili Focht¹, Jessica Livovsky¹, Raffi Lev-Zion¹, Oren Ledder¹, Ruth Cytter-Kuint¹, Elena Zharkov¹, Efrat Broide², Amit Assa³, Rotem Sigall Boneh⁴, Batia Weiss⁵, Mordechai Slae⁶, Iris Dotan⁷, Jarosław Kierkuś⁸, Anne Griffiths⁹, Timna Naftali¹⁰, Marina Aloj¹¹, Anat Yerushalmy-Feler¹², Tobias Schwerd¹³, Ram Reifen¹⁴, Dan Turner¹

¹The Juliet Keidan Institute of Pediatric Gastroenterology, Shaare Zedek Medical Center, The Hebrew University of Jerusalem, Israel; ²Pediatric Gastroenterology Institute of Gastroenterology Assaf Harofeh Medical Center, Zerifin, Israel; ³Kaplan Medical Center, Gastroenterology Unit, Rehovot, Israel; ⁴The E. Wolfson Medical Center, Pediatric Gastroenterology and Nutrition Unit, Holon, Israel; ⁵Edmond & Lily Safra Children's Hospital, Tel-Hashomer, Israel; ⁶Hadassah Ein Kerem, The Pediatric Gastroenterology Center, Jerusalem, Israel; ⁷Rabin Medical Center, Director, Division of Gastroenterology, Petah Tikva, Israel; ⁸The Children Memorial Health Institute, Warsaw, Poland; ⁹Division of Gastroenterology, Hepatology, and Nutrition, Hospital for Sick Children and University of Toronto, Toronto, Ontario, Canada; ¹⁰Meir Hospital, Gastroenterology, Kfar Saba, Israel; ¹¹Department of Pathophysiology and Transplantation, Università degli Studi di Milano - Pediatric Gastroenterology, Hepatology and Cystic Fibrosis Unit, Fondazione IRCCS Cà Granda, Ospedale Maggiore Policlinico di Milano, Milan, Italy; ¹²Tel Aviv Sourasky Medical Center, Pediatric Gastroenterology, Tel Aviv, Israel; ¹³Department of Pediatrics, Dr. von Hauner Children's Hospital, University Hospital, LMU Munich, Germany; ¹⁴The Hebrew University of Jerusalem, Institute of Biochemistry, Food Science and Nutrition Robert H. Smith Faculty of Agriculture, Food and Environment, Jerusalem, Israel.

BACKGROUND



- Tasty&Healthy (T&H) diet is an exclusion whole food diet shown to induce clinical and biological remission in Crohn's disease (CD). It eliminates processed foods, gluten, red meat, and dairy (except plain yogurt); no formula or mandatory components are needed.
- We aimed to evaluate the ability of the T&H diet to maintain remission during gradual reintroduction of gluten and dairy.

METHODS



- Patients, aged 4–37 years, achieving deep remission (MINI index < 8 and wPCDAI < 12.5/CDAI < 150) in the previous TASTI-MM (T&H vs. EEN) and TASTI-E (T&H vs. regular diet) induction RCTs, were enrolled in this open-label trial and completed 24 weeks on the diet.
- Gluten and dairy were reintroduced monthly; >30% increase in fecal calprotectin prompted re-elimination of the ingredient. Intestinal Ultrasound with Segmental Activity Scoring (IUS-SAS) was determined at weeks 0, 8 and 24 and video capsule-endoscopy (VCE) or ileocolonoscopy at week 24.

RESULTS



- Forty-three patients were enrolled (age 16±5.8 years, 33 children/adolescents). 91% did not receive any therapy besides T&H.
- Clinical remission at 24-week was maintained in 37/43 (86%); 53% successfully re-introduced gluten and dairy.
- All IUS parameters improved from baseline to weeks 8 and 24 (Figure): terminal-ileum scores (median IBUS-SAS scores 43 [IQR 0-64.8], 14 [0-47.5], 5 [0-31]; p=0.0069), and maximal bowel score (44.9 [2.1-64.9], 14 [0-48.5], 13.6 [0-34.6]; p=0.0068).
- Among 29 patients with paired IUS assessments at baseline and week 24, 86% showed improvement or normalization of the ileal IBUS-SAS score, and 83% (24/29) demonstrated improvement in both the maximal and pan-enteric cumulative scores.
- Of the 23 patients who underwent VCE/ileocolonoscopy, 14 (61%) exhibited endoscopic healing (Lewis score < 270) or had only a few aphthous ulcers.

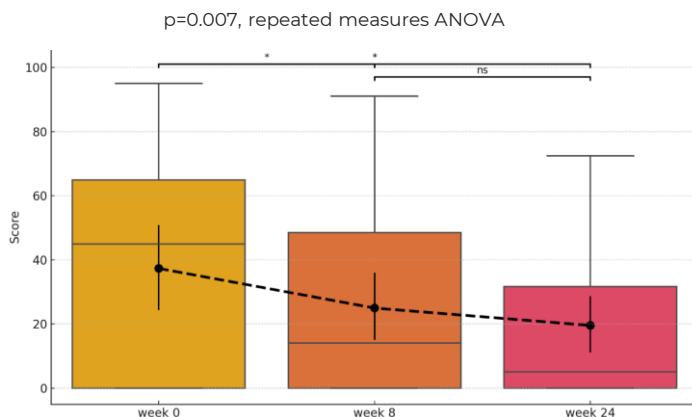


Figure: Change in IBUS-SAS score in the terminal-ileum at the three study visits

CONCLUSIONS



- The T&H diet, combined with structured, calprotectin-guided reintroduction of gluten and dairy, maintained clinical remission and improved radiological and endoscopic inflammation in patients up to 24 weeks.