THE IMPACT OF H. PYLORI INFECTION ON IRON, VITAMIN B12, AND MINERAL LEVELS





Overview

- HELICOBACTER PYLORI (H. PYLORI): A COMMON BACTERIAL INFECTION OF THE STOMACH LINING • ASSOCIATED WITH VARIOUS GASTROINTESTINAL
- ISSUES INCLUDING GASTRITIS AND PEPTIC ULCERS
- IMPACT ON NUTRIENT ABSORPTION AND SYSTEMIC HEALTH

H. pylori and Iron Deficiency

- IMPACT ON IRON LEVELS
 - H. PYLORI INFECTION LINKED TO LOWER SERUM IRON LEVELS
- MECHANISMS:
 - CHRONIC GASTRITIS REDUCES GASTRIC ACID SECRETION, IMPAIRING IRON ABSORPTION
 - ERADICATION THERAPY IMPROVES SERUM IRON LEVELS
- SOURCE: STUDY FROM INTECHOPEN (INTECHOPEN OPEN SCIENCE OPEN MINDS)



H. pylori and Vitamin B12 Deficiency

- IMPACT ON VITAMIN B12 LEVELS
 - H. PYLORI INFECTION ASSOCIATED WITH REDUCED VITAMIN B12 ABSORPTION
- MECHANISMS:
 - DECREASED INTRINSIC FACTOR SECRETION DUE TO CHRONIC GASTRITIS
 - REDUCED GASTRIC ACID PRODUCTION AFFECTS B12 ABSORPTION
 - ERADICATION THERAPY RESTORES VITAMIN B12 LEVELS
- **SOURCE:** STUDY ACADEMIC.OUP.COM (<u>MDPI</u>)

Broader Nutrient Deficiencies

- OTHER AFFECTED NUTRIENTS
 - VITAMIN C, FOLATE, AND VITAMIN D ALSO IMPACTED BY H. PYLORI
 - CHRONIC INFECTION CAUSES SYSTEMIC INFLAMMATION AFFECTING NUTRIENT ABSORPTION
- SOURCE: META-ANALYSIS FROM JOURNAL OF CLINICAL GASTROENTEROLOGY (FRONTIERS)

O IMPACTED BY H. PYLORI NFLAMMATION AFFECTING

Mechanisms of Nutrient Absorption Disruption

- GASTRIC PHYSIOLOGY CHANGES
 - NON-ATROPHIC GASTRITIS: EXCESSIVE ACID PRODUCTION
 - \circ Atrophic Gastritis: reduced or absent acid secretion
 - \circ BOTH CONDITIONS DISRUPT NORMAL DIGESTIVE PROCESSES
- SOURCE: INTECHOPEN (INTECHOPEN OPEN SCIENCE OPEN MINDS)

CID PRODUCTION AT ACID SECRETION ESTIVE PROCESSES SCIENCE OPEN MINDS)

Systemic Health Effects

- BROADER HEALTH IMPLICATIONS
 - LINKS TO METABOLIC SYNDROME, DIABETES, AND CARDIOVASCULAR DISEASES
 - CHRONIC INFLAMMATION FROM H. PYLORI CONTRIBUTES TO THESE CONDITIONS
- SOURCE: STUDIES FROM MDPI AND CLINICAL GASTROENTEROLOGY (BIOMED CENTRAL) (OXFORD ACADEMIC)



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66 thank you ...

