

CLINICAL SPECIFICATIONS

GLUTEOMORPHIN + PRODYNORPHIN

Function:

Gluteomorphin, also known as, Gliadorphin, is an opioid peptide formed from undigested Gliadin from gluten protein. Prodynorphin (PDYN) is an opioid polypeptide. Endogenous PDYN is a building block for endorphins, the neurotransmitters involved in anxiety, stress, deep emotional bonds, learning and memory. Exogenous PDYN from wheat can compete with endogenous PDYN at receptor sites.⁴

Antibodies Appear:

Autism^{7,8}
 Celiac disease⁶
 Gluten sensitivity⁶
 PANDAS¹

Known Cross-Reactions: Enkephalin¹

Clinical Significance:

When a patient has intestinal dysfunction or intestinal permeability, these small, undigested molecules may enter the blood stream, and, if blood-brain barrier permeability exists, pass through the blood-brain barrier. In the brain, Gluteomorphins can directly interfere with neuronal messaging by binding to the opioid receptors thus inhibiting the natural binding of neurotransmitters to their receptors.^{2,6,7,8} In addition, lymphocytes carry the same receptors on their own surfaces; therefore, Gluteomorphins can indirectly interfere with opioid receptors through lymphocyte secretion of cytokines and cause the delivery of wrong messages to the brain.^{7,8} If antibodies are produced to Gluteomorphin, these antibodies act like the natural opioids, on the lymphocytes and the nerve cells causing neuro-immune abnormalities. Thus, Gluteomorphin can disturb neuro-immune communication through neurotransmitters and cytokines. After the ingestion of wheat, some patient's digestive processes break down the wheat into prodynorphin (PDYN) peptides. There are indirect mechanisms by which circulating PDYN could modulate brain function.³ If exogenous PDYN enters the blood stream, cross-talk occurs between the exogenous PDYN and the endogenous PDYN.⁴ Exogenous PDYN can have agonist, partial agonist, or antagonist action at certain receptor types.⁴ PDYN also cross-reacts with enkephalins, which regulate nociception in the body. These actions of exogenous PDYN cause an opiate effect on the body.⁹

References:

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