

THE PSYCHO-NEURO-IMMUNE-ENDOCRINE RESPONSE: A PHYSIOLOGICAL AND PATHOLOGICAL WAY OF LIFE

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It is proposed that the response of the organism to injury by mechanical energy is made up of three consecutive phases: an immediate or nervous phase, an intermediate or immune phase and a late or endocrine phase. The functions that characterize each one of these three phases could represent the activity of the functional nervous, immune and endocrine systems. This functional concept of the psycho-neuro-immune-endocrine system could make it possible to integrate biochemical knowledge into the organism response to injury.

La respuesta psico-neuro-inmune-endocrina en fisiología y patología. Se propone que la respuesta del organismo a la agresión por energía mecánica está constituida por tres fases consecutivas: una fase inmediata o nerviosa, una fase intermedia o inmune y una fase tardía o endocrina. Las funciones que caracterizan cada una de estas tres fases podrían representar la actividad de los sistemas funcionales nervioso, inmune y endocrino. Este concepto funcional del sistema psico-neuro-inmune-endocrino permitiría integrar el conocimiento bioquímico en la respuesta del organismo a la agresión.

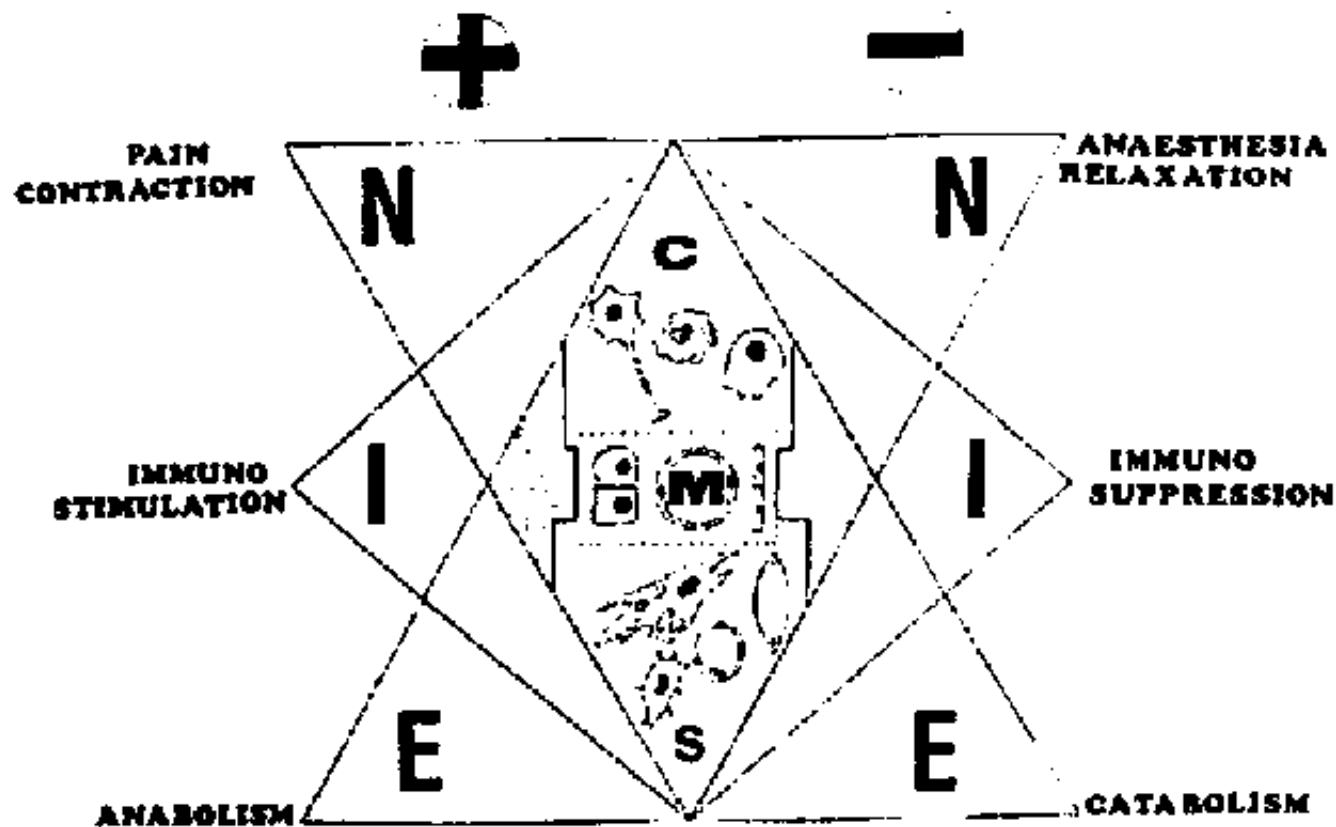


Figure 1. The organism, represented by its control (C), mediator (M) and structural (S) components, responds to injury with inflammation, which is considered as a three successive phases functional response: Immediate or nervous (N), intermediate or immune (I) and late or endocrine (E), which, in turn, have a hyperfunctional (+) or hypofunctional (-) expression. C: nervous, lymphoid and endocrine tissue. M: epithelium, endothelium and mesothelium. S: smooth and striatum muscular tissue, connective tissue, osseous tissue and adipose tissue.