MIP-1a (alpha) and MCP-1: Biomarkers For Chronic Pelvic Pain Syndrome

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Technology description

Abstract

Northwestern researchers identified MIP-1a and MCP-1 as biomarkers for Chronic Pelvic Pain Syndrome (CPPS). These markers are easily assayed from expressed prostatic secretions. These are the first biomarkers that are able to diagnose both inflammatory (Type IIIa) and non-inflammatory (Type IIIb) CPPS. CPPS is a common cause of visits to primary care physicians and urologists. The clinical diagnosis of CPPS depends on patient history and physical examination; currently there is no diagnostic laboratory test. CPPS affects approximately 5-10% of men and is characterized by pelvic pain and in some cases voiding difficulties. Previous results had indicated that various cytokines were able to diagnose Type IIIa CPPS, but no biomarkers had been identified for Type IIIb CPPS. In further experiments characterizing the cytokines that may be involved in CPPS, Northwestern investigators determined that MIP-1a and MCP-1 are present and significantly elevated the the prostatic fluid of men with both inflammatory (type IIIa) and non-inflammatory (type IIIb) CPPS. The data below demonstrate the quantitation of MIP-1a and MCP-1 in prostatic secretions of men previously diagnosed with IIIa, IIIb, or non-CPPS; please note the high levels of both of these cytokines in CPPS patients versus non-CPPS controls. This invention provides the first biological markers that can diagnose both inflammatory and non-inflammatory CPPS.

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