Abeer Kadry El Zohiery et al., J Pharmacogenomics Pharmacoproteomics 2014, 5:5
http://dx.doi.org/10.4172/2153-0645.S1.002

OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference on
Predictive, Preventive and Personalized Medicine & Molecular Diagnostics
November 03-05, 2014 Embassy Suites Las Vegas, USA

Role of bone morphogenetic protein-2 in primary knee osteoarthritis

Abeer Kadry El Zohiery, Nadia A El Kadery, Henaz Khaled and **Miriam R Bekhit**
Ain Shams University, Egypt

Introduction: Many different factors contribute to the onset and progression of OA. The bone morphogenetic proteins (BMPs), that are subsets of the (TGF- ß) superfamily, stimulate production of extracellular matrix components by chondrocytes and have the ability to counteract catabolic cytokines like interleukin 1 (IL-1).

Aim of the work: The aim of this study was to investigate the role of plasma BMP-2 in primary knee osteoarthritis and its relation to disease severity.

Methodology: The study included 30 patients with primary knee OA and ten apparently healthy matchedindividualsasa control group. Plasma levels of BMP-2, radiological severity of the disease, pain intensity as well as, assessment of functional status using the Western Ontario and McMaster University Osteoarthritis Index (WOMAC) were done.

Results:

Plasma levels of BMP-2 were significantly higher in patients than in control group.

Patients with palpable osteophytes have the highest BMP-2 levels.

A strong positive correlation was found between plasma levels of BMP-2 and each of: radiological severity, disease duration and WOMAC score.

In Conclusion: BMP-2 levels correlate with radiographic severity of OA which make such biomarker measurement may not only act as a substitute marker for the disease, but also has the potential to contribute to the fundamental processes underlying the pathogenesis of OA.

dr.abeerzohiery@gmail.com