AbstractID: 4716 Title: Magnetization Transfer after Bee Venom Acupuncture Treatment to Osteoarthritis

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Purpose: Magnetization Transfer (MT) is based on well-defined biophysical and biochemical properties. Bee Venom Acupuncture(BVA) demonstrated anti-inflammatory and analgesic actions oriental clinical trials. The purpose of the present study was to evaluate the data from experimental and clinical studies and to show further ways to better comprehend the effectiveness of BVA and MT.

Materials and Methods: In order to achieve our objective it was necessary to optimize a suitable interleaved Magnetization transfer contrast (MTC)/ GRE . Using a 1.5T GE system, set in Ja-Sang Korean Oriental Hospital, was imaged with MTC parameters suggested by Barker GJ et al .

Results: MTC assessed compositional and structural changes and thickness measurements to assess loss of cartilage substance. In principal, all these techniques are applicable in vivo. Compositional and structural properties are considered to reflect earlier stages of disease and may thus improve the chances to depict potentially reversible alterations.

Discussions: Cartilage volumetric properties and cartilage loss may be involved later in the course of the disease but are easier to be described. MRI quantification of cartilage volume is based on the acquisition of a high resolution 2D data providing good contrast between the cartilage and the surrounding tissues in the joint as well as a homogeneity of the signal within the cartilage in order to facilitate semi automated segmentation.

Conclusions: Articular Cartilage(AC) is a tissue capable of transferring and distributing impressive forces across a joint. Venom injected by BVA have created hope that cartilage breakdown can be modulated. These ways creates a need for a non invasive diagnostic tool that can provide quantitative parameters and contribute to evaluate the efficacy of these therapeutic efforts..