Which is the Better Treatment for Kashin-Beck Disease: Single or Combination?

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In the Northern of China, Kashin-Beck disease (KBD), a special type of osteoarthritis (OA), has a high prevalence, which characterized by degenerative changes of joint cartilage. Several lines of underlying mechanisms contribute to the pathogenesis of KBD. The gene expression of peripheral blood mononuclear cells in KBD with grades I and II may play a critical role in the genesis of the early KBD (1). Manganese and calcium are two important ions impacting on the KBD (2). To prevent the new morbidity of KBD in healthy children, supplement of salt-rich selenium was considered as an effective way in repairing metaphysis lesions (3). Although chondroitin sulfate and glucosamine have been widely used and showed effectiveness in the treatment of OA, the role of both drugs to KBD remains unclear. In the systematic review by Dr. Wu and colleagues (4) investigated the therapeutic mechanisms, safety and cost-effectiveness of chondroitin sulfate and glucosamine for the treatment of KBD studied with comprehensive randomized controlled trials (RCTs) and non-randomized controlled trials, providing with strong evidence that both chondroitin sulfate and glucosamine are effective in treating KBD with compensation for the matrix loss of cartilage, antioxidative and anti-inflammatory effects. They also found that glucosamine sulfate is superior to glucosamine hydrochloride as its physiological function of sulfate groups in vivo (4). Furthermore, the combination of both chondroitin sulfate and glucosamine was highly recommended for the KBD treatment rather than chondroitin sulfate or glucosamine alone. Although the theoretic consideration of their combination is reasonable, maybe additive or synergic in the effectiveness, more basic studies and high-quality clinical trials are mandatory to estimate the real effect of chondroitin sulfate, glucosamine and their combination in combating KBD.

ARTICLE INFORMATION

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