

언어구분 ENG

논문구분 원저/구연

논문분야 슬관절

논문제목 폴레에틸렌 마모 입자의 슬관절내 골관절염 유도 과정

영문제목 **Polyethylene Wear Particles Play a Role in Development of Osteoarthritis via Toxic Effects on Intraarticular tissue.**

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**증례 (or 수술술기) :** Unicompartmental knee arthroplasty (UKA) is known to fail earlier than total knee arthroplasty (TKA), in part, due to degeneration of the opposite compartment. Previous reports suggest overcorrection of joint deformity, resulting in transfer of increased forces to the uninvolved compartment, as a cause of degeneration in the opposite compartment. Yet recent in vitro studies showed that chondrocytes act as phagocytes to internalize wear particles. We hypothesized that ultra-high molecular weight polyethylene (UHMWPE) particles per se would interact with intraarticular tissue, which by acting as inflammatory reservoirs, would subsequently induce osteoarthritic (OA) changes in an in vitro and in vivo system. Our goal was to evaluate toxic effects of nano-sized UHMWPE wear particles on the knee joint, leading to or accelerating OA progression.

**acknowledgment :**

polyethylene, osteoarthritis, unicompartmental knee arthroplasty

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