

언어구분	KOR	논문구분	원저/구연	논문분야	슬관절
논문제목	슬관절 부분치환술에서의 절삭면의 골밀도에 기반한 경골 치환물의 덮음: 경골측 치환물의 침강 방지에 관한 임상적 연관성				
영문제목	Tibial Component Coverage Based on the Bone Mineral Density of the Cutting Surface in the Uni-compartmental Knee Arthroplasty: Clinical Relevance in the Prevention of Subsidence of Tibial Component				
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저자	이용석, 오원석, 원준성, 심재양, 이범구				
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서론 : The strongest bone in the proximal tibial plateau is the cortex and optimally implanted UKA tibial component would be one that is flush with all edges of the tibia, but this is often not possible. In such situations, surgeons need to decide between component overhang and underhang and which sites must be covered and which sites could be undercovered. The objectives of this study were 1) to evaluate the bone mineral density (BMD) of the cut surface of proximal tibia around cortical rim and 2) to know the change of BMD according to the sites (medial versus lateral) and ages.

재료 및 방법 : The strongest bone in the proximal tibial plateau is the cortex and optimally implanted UKA tibial component would be one that is flush with all edges of the tibia, but this is often not possible. In such situations, surgeons need to decide between component overhang and underhang and which sites must be covered and which sites could be undercovered. The objectives of this study were 1) to evaluate the bone mineral density (BMD) of the cut surface of proximal tibia around cortical rim and 2) to know the change of BMD according to the sites (medial versus lateral) and ages.

결과 : In the medial side, mid-portion including cortex showed highest BMD with statistical significance in both male and female patients. The posterior portion showed lowest BMD in male patients and the anterior and posterior portion showed lowest bone density in female patients. The portions including cortex showed higher BMD than pure cancellous portions in the medial side. In the lateral side, posterior portion including cortex showed highest BMD with statistical significance in both male and female patients. The anterior portion showed lowest BMD in both male and female patients. The majority of portions including cortex also showed higher BMD than pure cancellous portions in the lateral side. The majority of medial sides showed higher BMD than lateral sides with statistical significances. The BMD was higher in the relatively young patients with statistical significance.

결론 : Mid portion of the medial side and posterior portion of the lateral side was relatively safe without cortical coverage when the component is not flush with all edges of the tibia. Cortical coverage is strongly recommended as

much as possible for the prevention of subsidence of the tibial component in the posterior portion of medial side, anterior portion of lateral side, especially in old osteoporotic patients.

acknowledgment :

Knee, Uni-compartmental Knee Arthroplasty, Bone Mineral Density, Component Coverage Coverage
