

Il compartimento mediale: **UNICAP** AKR.

Le indicazioni e l'approccio medico-paziente

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The **UniCAP** knee system is

the first **meniscus sparing** implant
designed specifically for the Sports
Medicine surgeon

It uses instrumentation similar to
arthroscopic knee ligament repair.

The New Algorithm for Knee Cartilage Treatment



UniCAP™ Implant



Unicompartamental Knee



Total Knee Replacement



UniCAP™ Femoral Component

- Cobalt chrome articulating surface
- Titanium plasma spray undercoating
- Bead-blasted titanium taper post

UniCAP™ Tibial Component

- Inlay cemented UHMWPE

The UniCAP™ surgical technique utilizes a cannulated system similar to those used in knee ligament repair.

Medial compartment

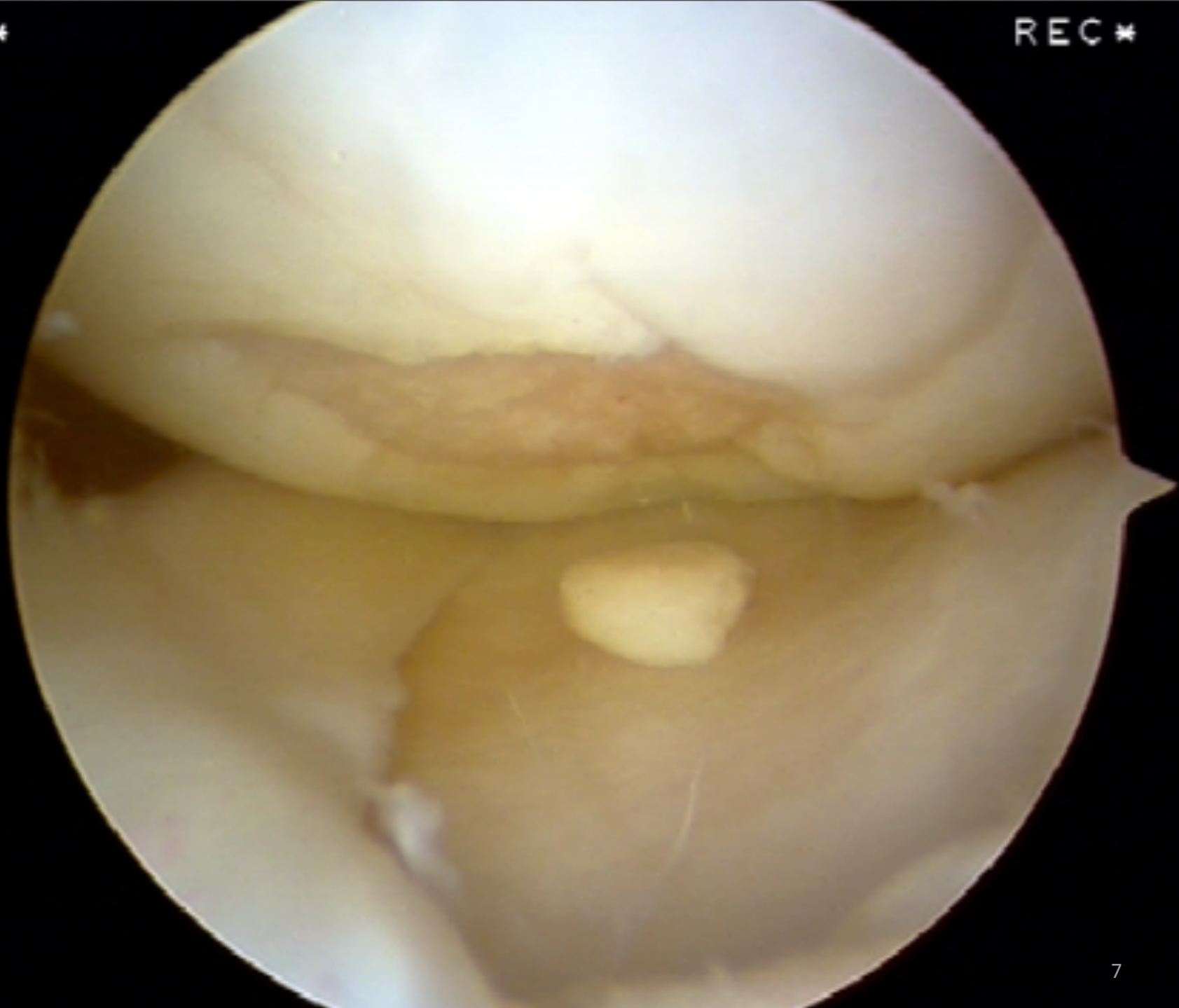
early diagnosis and treatment may improve the functional well-being and long-term outcome in patients with unicompartamental arthritis of the knee.

The spectrum of articular
cartilage damage can
range from minimal to
severe

The **location and size** of articular cartilage defects determine the severity of symptoms and the need for treatment.

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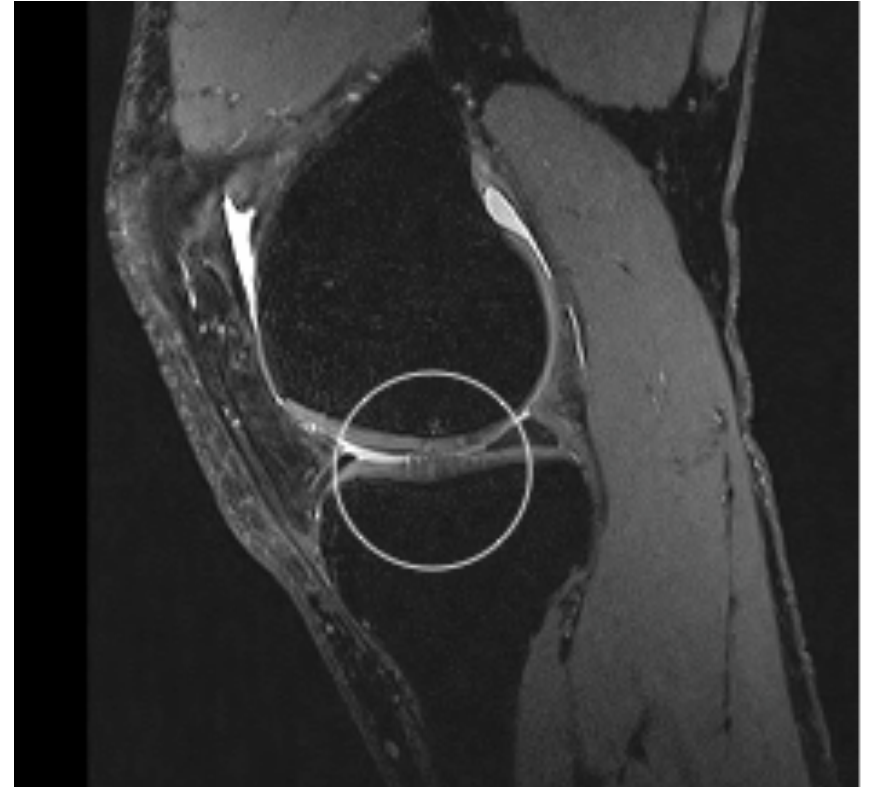


Symptomatic lesions of articular cartilage often **progress** with age, and treatment of isolated chondral or osteochondral defects may decrease or minimize the development of degenerative arthritis.

Ahlback grading system for
degenerative arthritis

Acta Radiol Diagn 1968

Stage I	Joint space narrowing
Stage II	Joint space obliteration
Stage III	Minor bone attrition
Stage IV	Moderate bone attrition
Stage V	Severe bone attrition
Stage VI	subluxation



Outerbridge Grading System for Cartilaginous Degeneration	<i>JBJS 1961</i>
Stage I	Soft discoloured superficial fibrillation
Stage II	Fragmentation <1.3 cm
Stage III	Fragmentation >1.3 cm
Stage IV	Erosion to subchondral bone (eburnation)

Focal defects of articular cartilage secondary to trauma or osteochondritis dissecans have **limited capacity** for repair and often progress to osteoarthritis with symptoms of pain, swelling, and stiffness

Management of Damaged Articular Cartilage



- Patients with good health status
- Active lifestyle
- $\text{BMI} \leq 30$
- Correctable varus of $\leq 6^\circ$
- Flexion deformity of $< 10^\circ$
- Stable tibiofemoral and patellofemoral joints
- At least 50% of meniscus intact

Operative Treatment of Damaged Articular Cartilage

Arthroscopic abrasion arthroplasty is an arthroscopic modification of open débridement .



Arthroscopy

Arthroscopy of a painful arthritic knee permits a surgeon to define

the extent of degenerative disease,
formulate a **treatment plan** on findings,
correct **mechanical problems** that are,
cannot alter the **natural history** of the
disease.

- (1) autologous osteochondral plug transfer,
- (2) autologous chondrocyte implantation,
- (3) osteochondral allograft **transplantation**.

Their role remains **to be defined**.

Unicompartmental Knee Arthroplasty

The choice of arthroplasty depends on the **patient**, the knee, and the surgeon.



Surgeons must consider surgical **skill** and patient **demand** when choosing a surgical treatment for unicompartmental arthritis of the knee

The patient

Environmental: Family,
address, instructional level,
functional demand

Physical: sex, age, BMI, Health

Hospital location

WEB advertaise

Reliability of the procedure

Post Op Rehab



The surgeon

Surgical procedure and mini
invasive technique

Day Surgery procedure

Recovery

Patients consent and

Patient Selection

No joint space narrowing

Normal alignment

Meniscus preserved

Middle aged, active person

Inlay resurfacing is bone and
meniscal sparing

Revision to standard UKA easier
due to shallow implant bed
resurfacing technique

Not designed for diffuse disease
or deformity

When patient **selection**, surgical technique, and implant utilization are optimized,

uniCAP knee arthroplasty can offer patients a knee that is **functionally superior** to a knee prosthesis, and **conversion** to total knee arthroplasty can be performed without substantial surgical difficulty.



Grazie