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Spor Yaralanmaları ve Tümöral Lezyonların Doğru Tanısı

Özellikle genç sporcularda ve spor ile yoğun uğraşan erişkinlerde, sıklıkla iskelet sistemi problemleri görülür. Bu problemler ve o bölgeye ait tümöral lezyonların tanı karmaşası, geri dönüşümsüz sorunlara yol açabilir.

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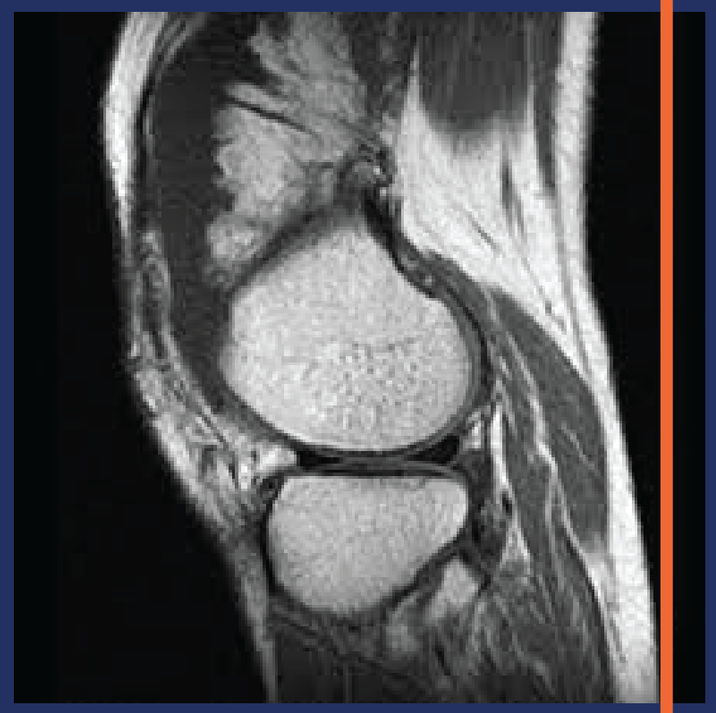
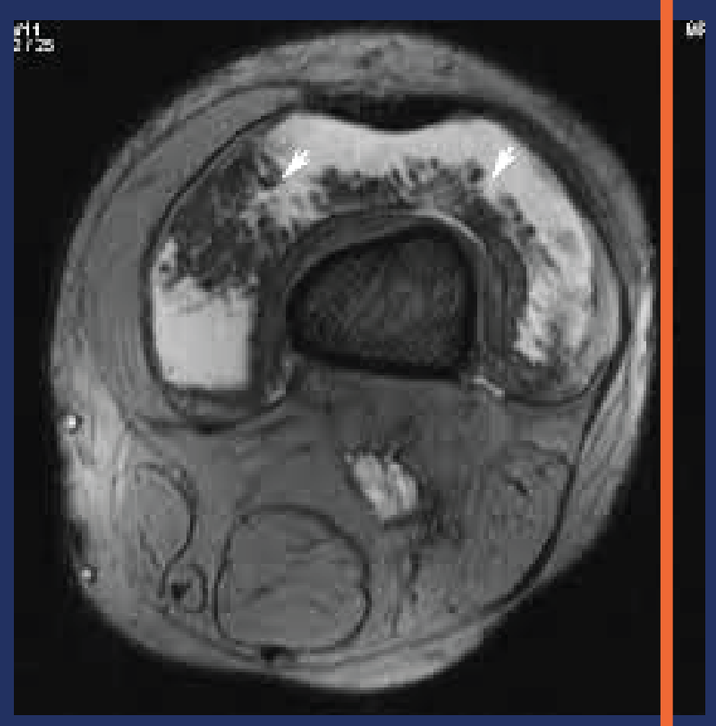
SPORCULARDA DİZ BÖLGESİ TÜMÖRLERİ





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Genç Yaş

Klinikte Travma olarak Değerlendirilen Tümör

Klinikte Tümör olarak Değerlendirilen Posttravmatik Lezyon

Genç Yaş

Dilemmas in Distinguishing Between Tumor and the Posttraumatic Lesion with Surgical or Pathologic Correlation

Eric Walker, MD[a,b,*], Pam Brian, MD[a], Victor Longo, DO[a], Edward J. Fox, MD[c], Elizabeth E. Frauenhoffer, MD[d], Mark Murphey, MD[b,e,f]

KEYWORDS

• Bone tumor • Soft tissue tumor • Sports injury • Hemorrhagic soft tissue sarcor
• Myositis ossificans • Hematoma

KEY POINTS

- Prolonged and atypical swelling of soft tissue, even in combination with a previous tra matic lesion, may be an indication of underlying malignancy, and proper imaging studi should be obtained before surgery or arthroscopy.
- A history of spontaneous fracture or fracture with minor trauma should raise suspicion f underlying disorder as the cause. MR imaging is often useful to show marrow abnormali and the accompanying soft tissue mass often associated with a pathologic fracture.
- Traumatic hematomas commonly develop under an area of subcutaneous ecchymosis, a the absence of this finding should raise the suspicion of tumor-associated hemorrhage. T absence of edema surrounding a large, round hematoma on imaging also suggests tum
- Healing avulsion injuries may show lytic and destructive imaging characteristi mimicking osteomyelitis or aggressive tumor.
- The earlier stages of myositis ossificans are likely to mimic a soft tissue neoplasm. Follo up radiograph or CT will demonstrate the typical peripheral calcification pattern.

Disclosure: E. Walker is a consultant for Medical Metrics. E.J. Fox is a speaker for Eli Lilly and spouse works for GlaxoSmithKline.

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0278-5919/13/$ – see front matter

Tumors About the Knee Misdiagnosed as Athletic Injuries

By D. Luis Muscolo, MD, Miguel A. Ayerza, MD, Arturo Makino, MD, Matías Costa-Paz, MD, and Luis A. Aponte-Tinao, MD

Investigation performed at the Institute of Orthopedics "Carlos E. Ottolenghi," Italian Hospital of Buenos Aires, Buenos Aires, Argentina

Background: Musculoskeletal tumors may originally mimic a traumatic condition, and, on the basis of an erroneous diagnosis of an athletic injury, an invasive diagnostic or therapeutic procedure may be performed. We determined the number of such cases treated at our institution, and we analyzed the initial and final diagnoses as well as the changes in the indicated oncologic surgical technique due to the initial erroneous diagnosis.

Methods: Twenty-five patients who had a bone or soft-tissue tumor about the knee that originally had been diagnosed as an athletic injury were referred to our institution. The complete clinical, radiographic, and pathological records were reviewed. Studies that had been performed prior to the invasive procedure and at the time of admission to our institution were evaluated to determine differences in the tumor stage and the oncologic treatment that was indicated at each time.

Results: Of 667 knee tumors diagnosed in our institution, twenty-five (3.7%) previously had been treated with an intra-articular procedure as a result of a misdiagnosis of an athletic injury. The final diagnoses made at our institution were a benign tumor in eleven patients and a malignant tumor in fourteen. Oncologic surgical treatment was affected in fifteen of the twenty-five patients.

Conclusions: When a knee tumor is initially misdiagnosed as an athletic injury, treatment may be adversely affected by the delay in diagnosis or an inappropriate invasive procedure that results in extension of the tumor. Initial poor-quality radiographs and an unquestioned original diagnosis despite persistent symptoms were the most frequent causes of an erroneous diagnosis.

Level of Evidence: Prognostic study, Level IV (case series). See Instructions to Authors for a complete description of levels of evidence.

Sports-related lesions around the knee are very common in young athletes, with an estimated annual rate of 0.3 per 100 individuals, depending on the definition of such injuries[1]. Musculoskeletal tumors are much less common, but they frequently occur in the same age group and also around the knee, and patients often recall some traumatic event with pain and swelling about the knee.

At oncologic musculoskeletal centers, it is not uncommon to see patients with a knee tumor that had been previously treated, for variable periods of time, as an athletic injury. We studied a group of such patients who, prior to their admission to our institution, had been treated with an invasive diagnostic or therapeutic procedure for a traumatic condition. We selected these patients for our study because such procedures might influence the final treatment, either by increasing the time required to make the final diagnosis of the tumor or by contaminating surrounding tissues. Both factors may alter the original identified tumor stage, the prognosis, and the surgical approach required to treat the tumor.

The purposes of this study were to determine the number of patients with a tumor about the knee who had undergone an inappropriate intra-articular procedure before eventually being treated for the tumor at our institution, to analyze the initial and final diagnoses, and to retrospectively evaluate changes in the indicated oncologic surgical management before and after the final diagnosis was made.

Materials and Methods

Between 1980 and 1998, 667 patients with a benign or malignant lesion around the knee were treated at our institution. Twenty-five (3.7%) of these patients previously had had an invasive diagnostic or therapeutic procedure because of an original diagnosis of an injury due to sports participation. The mean age of these twenty-five patients (eighteen male and

A commentary is available with the electronic versions of this article, on our web site (www.jbjs.org) and on our quarterly CD-ROM (call our subscription department, at 781-449-9780, to order the CD-ROM).

Review Article

Oncologic Conditions That Simulate Common Sports Injuries

Aaron Krych, MD
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Peter Rose, MD
Diane Dahm, MD
Bruce Levy, MD
Doris Wenger, MD
Michael Stuart, MD
Franklin Sim, MD

Abstract

Primary bone and soft-tissue tumors that mimic common sports injuries are relatively rare and are not often encountered by most orthopaedists. Prompt and accurate diagnosis of these tumors is crucial to maximize the clinical outcome. Many bone and soft-tissue tumors present disproportionately in young and active patients who are often involved in athletic activities. Thus, the clinician may misdiagnose these rare tumors as more common sports injuries. Symptoms that should raise suspicion for a neoplastic process include pain unrelated to activity and a clinical course that does not follow the typically expected recovery for a common sports injury. An awareness of the salient features of several bone and soft-tissue tumors as well as nononcologic processes that may simulate sports injuries can aid clinicians in the prompt diagnosis and clinical decision making of these rare tumors.

Primary tumors of bone and soft tissue are relatively rare and can be easily missed. A delay in accurate diagnosis can have limb- and life-threatening consequences. Many bone and soft-tissue tumors present disproportionately in young, active patients. In addition, patients with tumors frequently present with sports injuries or other minor trauma that can make diagnosis challenging.[1-3] In the United States, approximately 500 adolescents and young adults present with osteosarcoma annually.[4] Although osteosarcoma and other neoplastic conditions are rare, proper recognition and management have critical implications for ultimate function and survival. The orthopaedic surgeon must be aware of the salient features of several bone and soft-tissue tumors and nononcologic processes that may simulate more common benign injuries to facilitate prompt diagnosis and clinical decision making. Additional diagnostic investigation may be warranted in some cases.

History and Physical Examination

Musculoskeletal tumors may present insidiously. The importance of a thorough history and physical examination cannot be overstated. Diagnosis of these tumors may be challenging and can be delayed when a young, otherwise healthy patient has symptoms that can be attributed to sports-related activity or injury.

Pain and/or local swelling are common initial complaints, but pain associated with oncologic processes often predate the injury. Although pain is a common feature of bone tumors, it is rarely reported in the setting of soft-tissue tumors. Pain may be referred to an adjacent joint. In patients with musculoskeletal tumors, pain that is worse at night or does not remit with rest is always concerning, but it is not reliably part of the history.[5] Systemic symptoms such as fever, chills, and malaise may occur, but these symptoms are rare and

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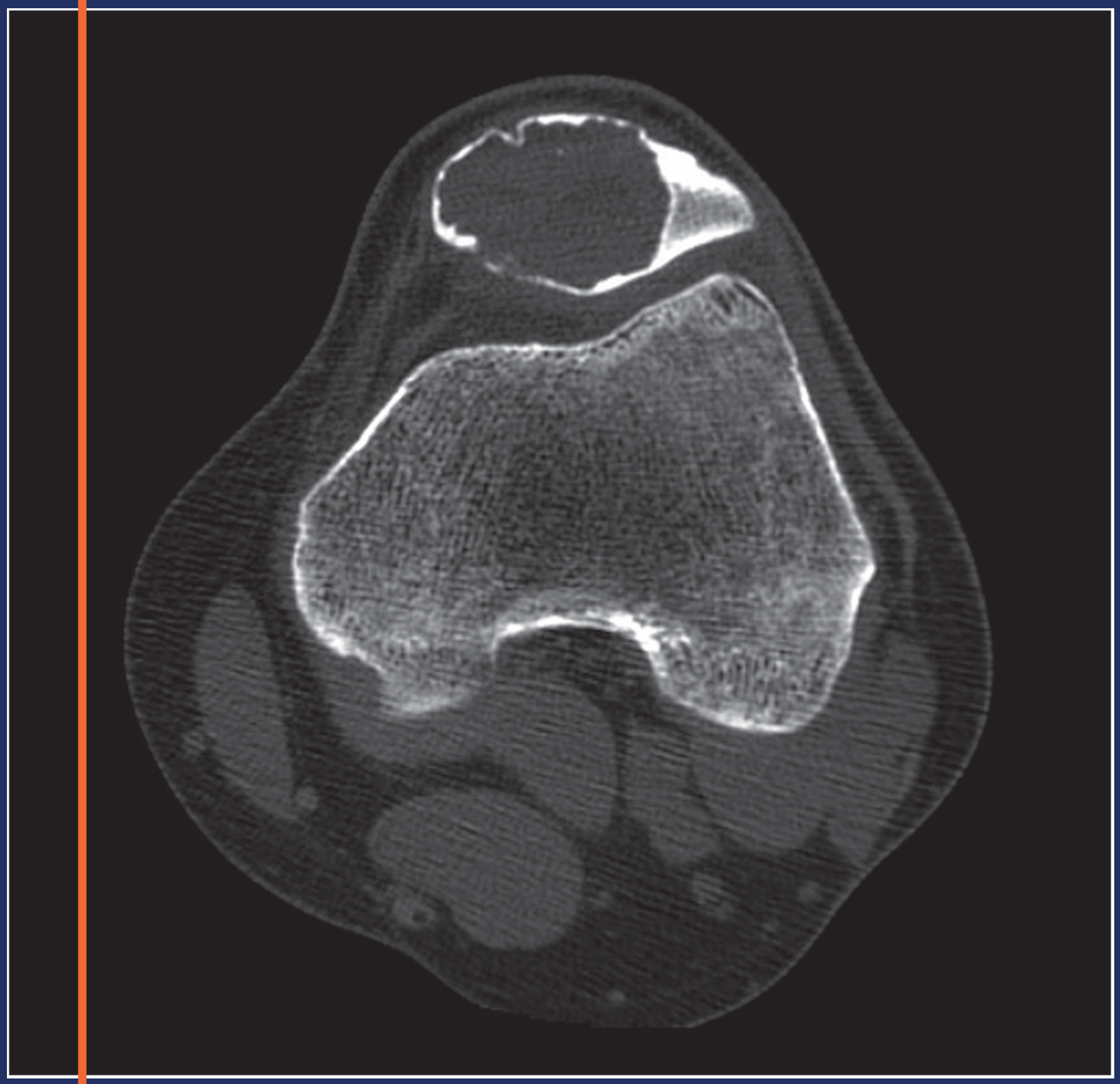
* VAROLAN SPOR YARALANMASINDAN BEKLENMEYEN SEMPTOMLAR

* BEKLENENDEN UZUN SÜREN SEMPTOMLAR



1 - BEKLENMEYENDEN ŞÜPHELENMEK

2 - DOĞRU SORULARI SORMAK

3 - İLERİ GÖRÜNTÜLEME

Spor Yaralanmalarını Taklit Eden Tümöral Patolojilerde İpuçları

+Aktiviteden bağımsız ağrı

+Gece ağrısı
+ İstirahat ağrısı

+ Normal iyileşme süresini aşan, uzun süreli semptomlar

+ Düz radyolojide yorumlanamayan kemik lezyonu

Tanımlanamayan yumuşak doku gölgesi

Spor Yaralanmalarını Taklit Eden Tümöral Patolojilerde ‘Tuzaklar’

+Hasta takiplerini muhakkak muayene ile yapın

+Telefon hekimliği !

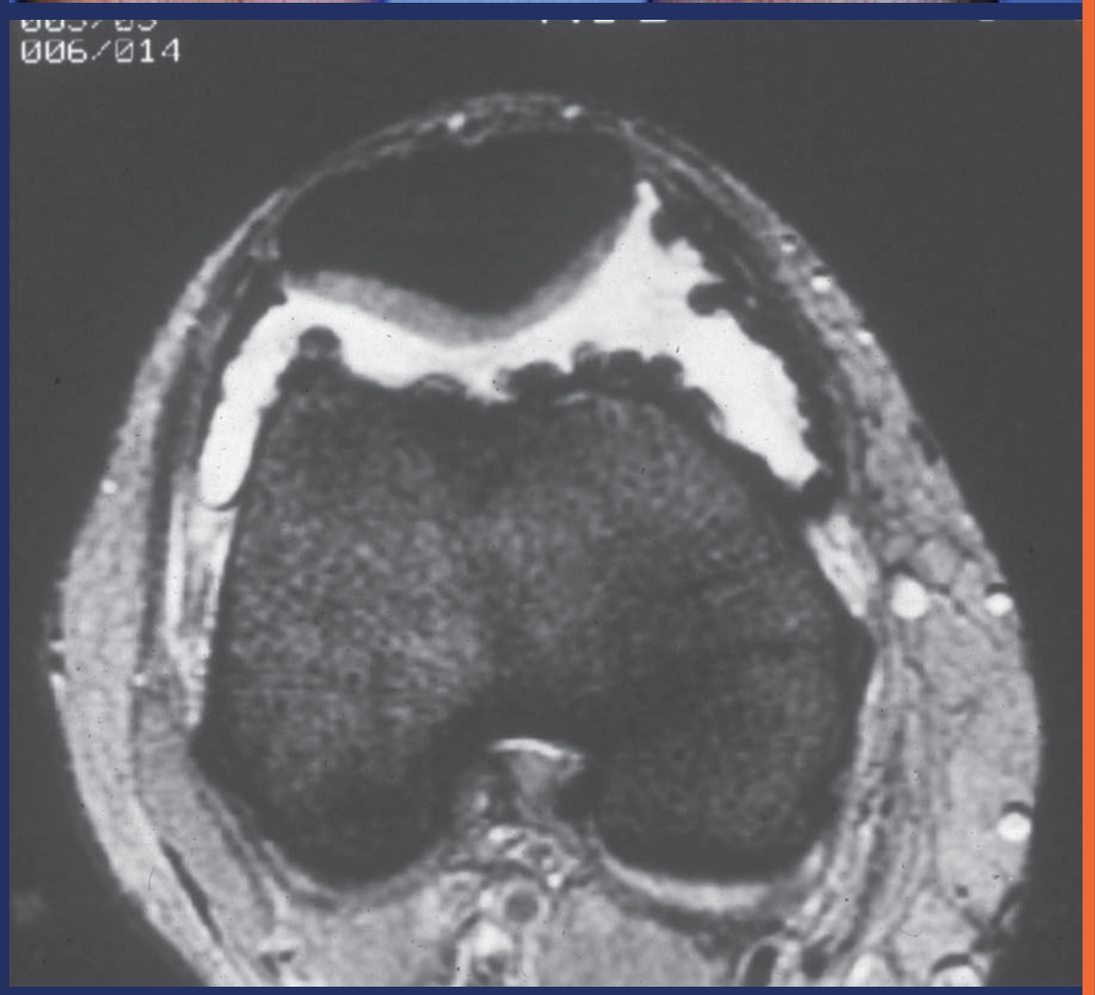
+ Hasta ve/veya aile, inkar edebilir

+ İfadelere güvenmeyin, dokunun !

+ Şüphe var ise, tetkik maliyeti düşünmeyin

+ Tedbir felaketi önler

+ Kesin tanı olmadan, (uzun süre) (etkisi görünmeyen) tedaviyi sürdürmeyin !



Travma Kliniği Taklit Eden Kemik Tümörleri

* Fibröz Kortikal Defekt (FKD)
* Dev Hücreli Tümör (DHT)
* Osteoid Osteoma (OO)
* Kondroblastom (KB)
* Osteosarkom (OSG)
* Ewing Sarkomu (EWS)
* Patolojik Kırık

Mekanik Blok Yapan Eklem İçi Yumuşak Doku Lezyonları

*** Pigmente Villonodüler Sinovit / Dev Hücreli Tendon Kılıfı tümörü**

*** Sinoviyal Kondromatozis**

*** Lipoma Arboresens**

Mekanik Blok Yapan Eklem İçi Yumuşak Doku Lezyonları

* Pigmente Villonodüler Sinovit / Dev Hücreli Tendon Kılıfı tümörü

*** Sinoviyal Kondromatozis**

* Lipoma Arboresens

Mekanik Blok Yapan Eklem İçi Yumuşak Doku Lezyonları

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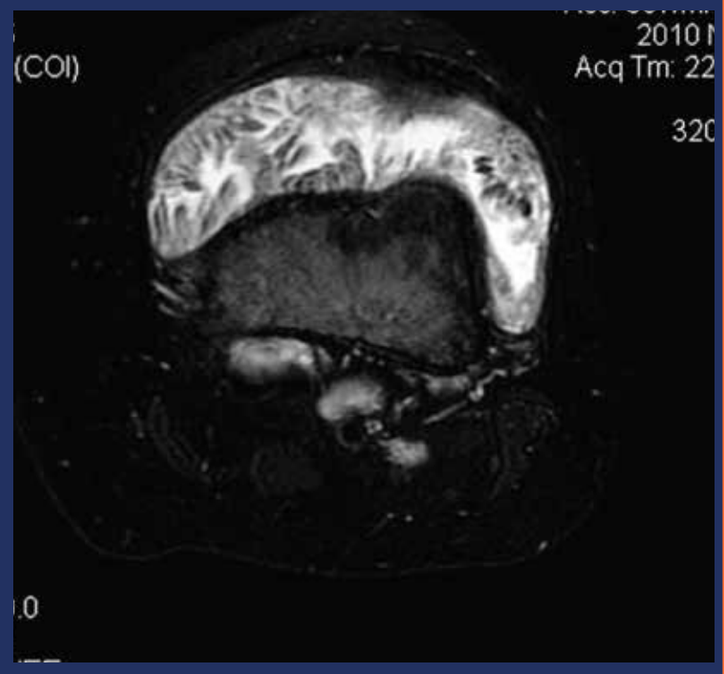
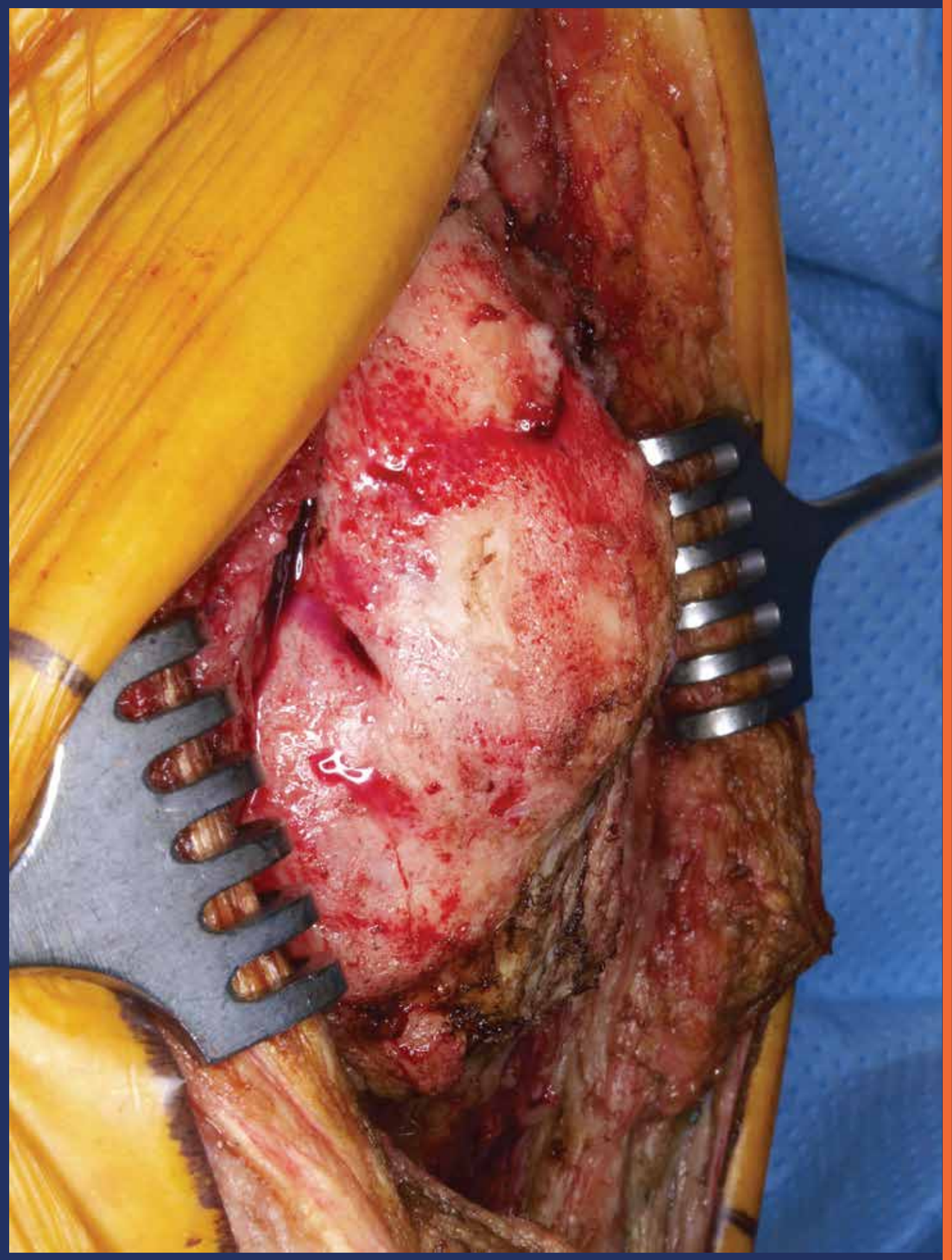
* Sinoviyal Kondromatozis
* **Lipoma Arboresens**



Maliniteyi Taklit Eden Posttravmatik Lezyonlar

* Avulsiyon Kırığı
* Stres Kırığı
* Miyositis Ossifikans
  * Yumuşak Doku Kondrosarkomu
  * Sinoviyal Sarkom
* Hematom
  * Akut
  * Kronik
  * Morrel - Lavalle



Hematom ?
Şüpheli Bulgular

* Spontan intramüsküler hematom

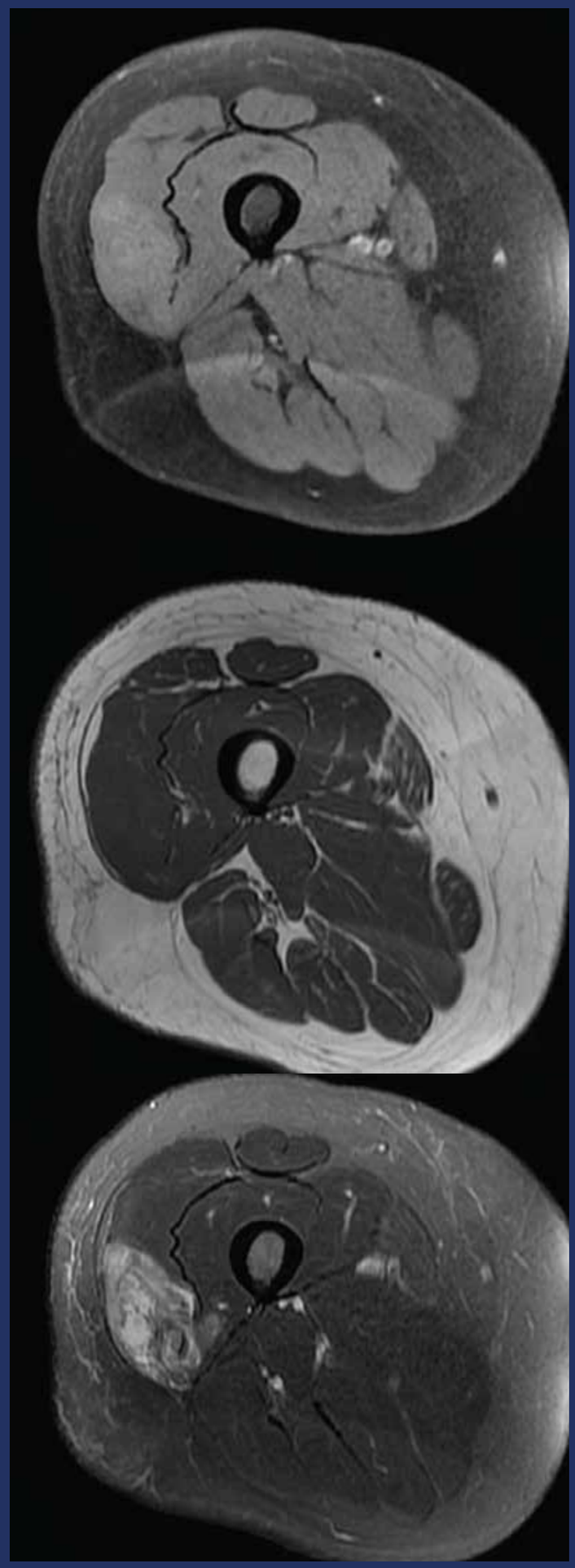
  * Hemofili, Kronik karaciğer yetmezliği vb.

* Travma enerjisi ile uyumsuz büyüklükte hematom

* Uzayan klinik

* Tekrarlayan / büyüyen hematom kitlesi ?

* % 55 hematom duvarında tümöral nodül



Özet - 1

* Genç yaş gurubu
* Diz bölgesi
  * Atletik yaralanma >>> Tümör
* Tümörler de aynı yaş gurubu ve lokalizasyonu tercih ederler !
* Başlangıç semptomları benzer
* Kalitesiz röntgen !
* Persistan semptomları gözden kaçırma !