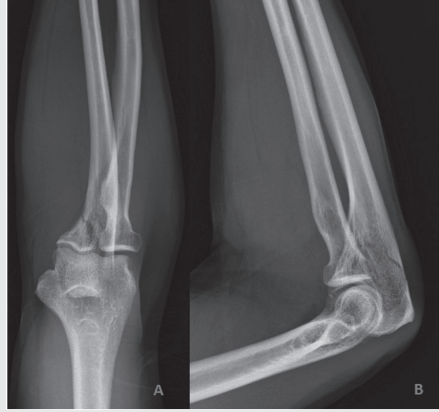


Vaka Örneği:

45 yaşında kadın hasta, düşme sonrası sağ dirseğinde ağrı şikayeti ile acil servise başvuruyor. Fizik muayenede dirsekte hafif şişlik ve ağrı mevcut. nörovasküler arazi yok. Direk grafileri aşağıdadır. Tanı ve tedavi planı nasıl olmalıdır?



1. Dirsek Yaralanmaları Genel Bilgiler:

Radius başı ve boynu kırıkları, erişkinlerde en sık dirsek yaralanmalarıdır ve tüm dirsek kırıklarının %33-50'sini oluştururlar (26).

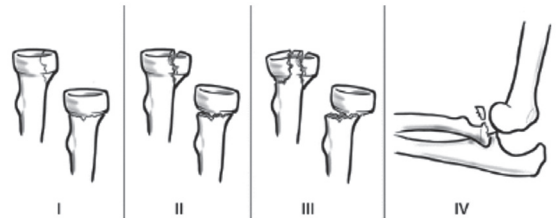
Olekranon kırıkları tüm üst ekstremitte yaralanmalarının %10'unu içerir. İnstabil kırıklarda tedavi cerrahidir ve iyileşme sonrası bile hareket kısıtlılığı azımsanmayacak ölçüdedir (27).

Dirsek Yaralanmaları Sınıflama Sistemleri :

Radius başı kırıkları için birçok sınıflama sistemleri önerilmiştir, ancak Johnston modifikasyonlu Mason sistemi, radyoloji ve ortopedik literatürde en sık başvurulanlardan biridir (Şekil 13) (28,29).

Tablo 8. Radius Başı Kırıkları Modifiye Mason Sınıflaması (Johnston)

Tip 1	Minimal (<2mm) deplasman	Konservatif
Tip 2	2 mm'den fazla deplasman, artiküler yüzeyin en fazla %30'u etkilenmiş	Konservatif/ cerrahi
Tip 3	Radius başı parçalı kırığı	Cerrahi
Tip 4	Radius başı kırıklı çıkığı	Cerrahi



Şekil 13. Radius Başı Kırıkları Modifiye Mason Sınıflaması (Jonston)

Kırmızı Bayraklar :

- ☞ El işlevi ve özellikle parmakların kullanımı çoğu günlük görev için ve neredeyse her meslek için hayati öneme sahiptir, metakarpal ve falangeal kırık olan hastaların normal işlevlerini yerine getirmek için uygun tedaviyi almaları önemlidir
- ☞ Açık yara varlığında, mutlaka tendon kesisi ve nörovasküler değerlendirme açısından ayrıntılı değerlendirme yapılmalıdır

Kaynaklar

- 1- Van der Meijden OA, Gaskill TR, Millett PJ. (2011). Treatment of clavicle fractures: current concepts review. *J Shoulder Elbow Surg*, 21(3):423-9. doi: 10.1016/j.jse.2011.08.053.
- 2- Toogood P, Horst P, Samagh S, Feeley BT. (2011). Clavicle fractures: a review of the literature and update on treatment. *Phys Sportsmed*, 39(3):142-50. doi: 10.3810/psm.2011.09.1930
- 3- Paladini P, Pellegrini A, Merolla G, Campi F, Porcellini G. (2012). Treatment of clavicle fractures, 2 (6): 47-58. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3728778/pdf/tm-02-47.pdf>
- 4- Allman FL Jr. (1967). Fractures and ligamentous injuries of the clavicle and its articulation. *J Bone Joint Surg Am*, 49(4):774-84. <https://www.ncbi.nlm.nih.gov/pubmed/6026010>
- 5- Neer CS. (1968). Fractures of the distal third of the clavicle. *Clin Orthop Relat Res*, 58:43-50. <https://www.ncbi.nlm.nih.gov/pubmed/5666866>
- 6- Robinson CM. (1998) Fractures of the clavicle in the adult. Epidemiology and classification. *J Bone Joint Surg Br*, 80(3): 476-84 <https://www.ncbi.nlm.nih.gov/pubmed/9619941>
- 7- O'Neill BJ, Hirpara KM, O'Briain D, McGarr C, Kaar TK. Clavicle fractures: a comparison of five classification systems and their relationship to treatment outcomes. *Int Orthop*. 2011, 35(6):909-14. doi: 10.1007/s00264-010-1151-0.
- 8- Cole PA, Freeman G, Dubin JR. (2013). Scapula fractures. *Curr Rev Musculoskelet Med* 6:79-87 doi: 10.1007/s12178-012-9151-x
- 9- Ideberg R, Grevsten S, Larsson S. (1995). Epidemiology of scapular fractures: incidence and classification of 338 fractures. *Acta Orthop Scan*, 66:395-397 <https://www.ncbi.nlm.nih.gov/pubmed/7484114>
- 10- Eyres KS, Brooks A, Stanley D. (1995). Fractures of the coracoid process. *J Bone Joint Surg Br*, 77:425-428. <https://www.ncbi.nlm.nih.gov/pubmed/7744929>
- 11- Ogawa K, Matsumura N, Ikegami H. (2012). Coracoid fractures: therapeutic strategy and surgical outcomes. *J Trauma Acute Care Surg*, 72:E20-E26
- 12- Ropp AM, Davis DL. (2015). Scapular Fractures: What Radiologists Need to Know *AJR* 2015; 205:491-501 DOI:10.2214/AJR.15.14446
- 13- Ogawa K, Naniwa T. (1997). Fractures of the acromion and the lateral scapular spine. *J Shoulder Elbow Surg*, 6:544-548. <https://www.ncbi.nlm.nih.gov/pubmed/9437604>
- 14- Kuhn JE, Blasier RB, Carpenter JE. (1994). Fractures of the acromion process: a proposed classification system. *J Orthop Trauma*, 8:6-13 <https://www.ncbi.nlm.nih.gov/pubmed/8169698>
- 16- Jo MJ, Gardner MJ. (2012). Proximal humerus fractures. *Curr Rev Musculoskelet Med*, 5:192-198 doi: 10.1007/s12178-012-9130-2.
- 17- Benegas E, Neto AAF, Neto RB, Prada FS, Malavolta EA, Marchitto GO. (2010). Humeral Shaft Fractures. *Rev Bras Ortop*, 45(1):12-6 doi: 10.1016/S2255-4971(15)30210-X
- 18- Amir S, Jannis S, Daniel R. (2016). Distal humerus fractures: a review of current therapy concepts. *Curr Rev Musculoskelet Med*, 9:199-206 doi: 10.1007/s12178-016-9341-z
- 19- Neer CS (1970). Displaced proximal humeral fractures. I: classification and evaluation. *J Bone Joint Surg [Am]*, 2-A:1077-89 <https://www.ncbi.nlm.nih.gov/pubmed/5455339>
- 20- Müller ME, Allgöwer M, Schneider R, Willenegger H. (1991). Manual of internal fixation. Springer-Verlag; New York, 118-120.
- 21- Bryan RS. (1981). Fractures about the elbow in adults. *Instr Course Lect*,30:200-23. <https://www.ncbi.nlm.nih.gov/pubmed/7052827>
- 22- Jupiter JB, Mehne DK. (1992). Review Fractures of the distal humerus. *Orthopedics*, 15(7):825-33 <https://www.ncbi.nlm.nih.gov/pubmed/1630966>
- 23- Dubberley JH, Faber KJ, Macdermid JC, Patterson SD, King GJ. (2006). Outcome after open reduction and internal fixation of capitellar and trochlear fractures. *J Bone Joint Surg Am*, 88(1):46-54. DOI:10.2106/JBJS.D.02954
- 24- Muller M, Nazarian J, Koch P. (1996). Fracture and dislocation compendium. Orthopaedic Trauma Association Committee for Coding and Classification. *J Orthop Trauma*, 10. <https://www.ncbi.nlm.nih.gov/pubmed/8814583>
- 25- Milch H. (1964). Fractures and fracture dislocations of the humeral condyles. *J Trauma*, 4:592-607 <https://www.ncbi.nlm.nih.gov/pubmed/14208785>
- 26- Sheean SE, Dyer GS, Sodickson AD, Patel KI, Khurana B. (2013). Traumatic Elbow Injuries: What the Orthopedic Surgeon Wants to Know. *Radiographics*.33(3):869-88.
- 27- Rommens PM, Kuchle R, Schneider RU, Reuter M. (2004). Olecranon fractures in adults: factors influencing outcome. *Injury*, 35: 1149-1157
- 28- Mason ML. Some observations on fractures of the head of the radius with a review of one hundred cases. (1954). *Br J Surg*, 42(172):123-132
- 29- Johnston GW. (1962). A follow-up of one hundred cases of fracture of the head of the radius with a review of the literature. *Ulster Med J*, 31:51-56

- 30- Regan W, Morrey B. (1989). Fractures of the coronoid process of the ulna. *J Bone Joint Surg Am*, 71(9):1348-54.
- 31- O'Driscoll SW, Jupiter JB, Cohen MS, Ring D, McKee MD. (2003). Difficult elbow fractures: pearls and pitfalls. *Instr Course Lect*, 52:113-34.
- 32- Bernstein J, Monaghan BA, Silber JS, DeLong WG. (1997). Taxonomy and treatment--a classification of fracture classifications *J Bone Joint Surg Br*, 79(5):706-7; discussion 708-9.
- 33- Schatzker J. (1996). Fractures of the olecranon. In: Schatzker J, Tile M, editors. *The Rationale of Operative Fracture Care*. New York, NY: Springer-Verlag, 113-119.
- 34- Müller ME, Allgöwer M, Schneider R, Willenegger H. (1991). *Manual of Internal Fixation: Techniques Recommended by the AO-ASIF Group*, Berlin, Germany: Springer-Verlag.
- 35- Maccagnano G, Notarnivola A, Pesce V, Tafuri S, Mudoni S, Nappi V, Moretti B. (2018). Failure predictive factors of conservative treatment in pediatric forearm fractures. *BioMed Research International*, 1-8. <https://doi.org/10.1155/2018/5930106>
- 36- Reckling FW. (1982). Unstable fracture-dislocations of the forearm (Monteggia and Galeazzi lesions). *J Bone Joint Surg Am*, 64(6):857-63.
- 37- Frykman G. (1967). Fracture of the distal radius including sequelae--shoulder-hand-finger syndrome, disturbance in the distal radio-ulnar joint and impairment of nerve function. A clinical and experimental study *Acta Orthop Scand, Suppl* 108:3+.
- 38- Melone CP. (1984). Articular fractures of the distal radius. *Jr Orthop Clin North Am*, 15(2):217-36.
- 39- Fernández DL. (1993). Fractures of the distal radius: operative treatment. *Instr Course Lect*, 42:73-88
- 40- Rettig ME, Raskin KB. (2001). Galeazzi fracture-dislocation: A new treatment oriented classification. *J Hand Surg Am*, 26(2):228-35.
- 41- Cooney WP. (2003). Scaphoid fractures: current treatments and techniques. *3rd Instr Course Lect*. 52:197-208.
- 42- Herbert TJ, Fisher WE. (1984). Management of the fractured scaphoid using a new bone screw. *J Bone Joint Surg Br*, 66(1):114-23.
- 43- Russe O. (1960). Fracture of the carpal navicular. Diagnosis, non-operative treatment, and operative treatment. *J Bone Joint Surg Am*, 42-A:759-68.
- 44- Mayfield JK, Johnson RP, Kilcoyne RK. (1980). Carpal dislocations: pathomechanics and progressive perilunar instability. *J Hand Surg Am*, 5(3):226-41
- 45- Kollitz KM, Hammert WC, Vedder NB, Huang JJ. (2014). Metacarpal fractures: treatment and complications. *Hand (N Y)*, 9(1):16-23.