

## Bölüm 8

# KALÇA ÇEVRESİ KAS VE TENDON YARALANMALARI

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### GİRİŞ

Kalça çevresindeki kas iskelet sistemi yapılarının anatomik olarak kompleks yerleşimlerinden dolayı bu bölgedeki ağrılar ve yaralanmaların yönetimi oldukça zordur. Çoğu zaman iki ya da daha fazla yapının yaralanmaları birlikte görülebilir. Özellikle sporcularda kalça çevresi ağrıları sıklıkla görülen rahatsızlıklardan olup genellikle tanı ve tedavisi zor olan bir sorundur. Bu bölgedeki ağrının sebebi olabilen kas ve tendonların selim zorlanmasından, potansiyel olarak yıkıcı olan femur boyun stres kırığına kadar birçok patolojik durum benzer klinik sunumlarla ortaya çıkmaktadır (1, 2). Clohisy ve ark. genç erişkinlerde kalça ağrılarının etiolojilerini sınıflamak ve tedavi seçeneklerini bu sınıflara göre kategorize etmek için bir algoritma geliştirmişlerdir (Tablo 1). Etiyolojik olarak yansıyan ağrı, eklem dışı kaynaklı kalça sorunları, yapısal bozukluklar, yapısal olmayan eklem içi sorunlar ve karmaşık eklem içi sorunlar gibi beş ana sınıf ortaya koymuşlar ve bu beş ana sınıf içinde de hastalıkları kategorize etmişlerdir (3,4).

**Tablo 1: Genç erişkinde kalça ağrısına yaklaşım etiyojik sınıflama (Clohisy ve ark.)**

Yansıyan ağrı (Kalça Kaynaklı değil)	Lomber kökenli patoloji
Eklem dışı kaynaklı kalça sorunları	Atlayan kalça (snapping hip) Priformis sendromu
Yapısal bozukluk olmayan eklem içi sorunlar	Labrum yırtığı Kondral flep Kondral defekt Eklem faresi Sinovit
Yapısal bozukluklar	Gelişimsel kalça displazisi Sıkışma sendromu Perthes Femur üst uç epifiz kayması Osteonekroz
Karmaşık eklem içi sorunlar	Sekonder osteoartrit Posttravmatik osteoartrit Kondroliz İnflamatuvar artrit

Eklem dışı sorunlar; eklem dışı sıkışma sendromları (iskiofemoral, trokanterik-pelvis vb.), internal ya da eksternal atlayan kalça (snapping hip), trokanterik bursit, gluteus medius yırtığı, miyotendinöz yaralanmalar (hamstring, rektus femoris vb.), piriformis sendromu, sakroiliak patolojiler, sporcu fitiği (atletik pubalji) ve osteotis pubis olmak üzere geniş bir spektrumda karşımıza çıkabilir (3, 5).

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için tendon gevşetme veya uzatma önerilmektedir. Taylor ve ark. yaptığı bir çalışmada tendon gevşetme yapılan 16 hastanın 12'sinde semptomların tamamen hafiflediğini ve diğer 4 hastanın da semptomlarının iyileştiğini bildirmiştir (23, 69).

**Anahtar Kelimeler:** Addüktör Kas Yaralanmaları, Proksimal Hamstring Kas Yaralanmaları, Kalça Fleksör Kas Yaralanmaları

## KAYNAKÇA

1. Tandoğan R, Doral MN. (2011) Sporcularda Tendon Sorunları. Ankara. Totbid yayınları.
2. O'Kane JW. Anterior Hip Pain. American Family Physician. 1999;60:1687-96
3. Kalça Artroskopisi. Totbid. 2016. Sayfa 63 Aşık M, Tuncay İ, Kayaalp A, Beyzadeoğlu T.(2016). Kalça Artroskopisi. Ankara: Totbid. Bayt Yayın.
4. Clohisey JC, Keeney JA, Schoenecker PL. Preliminary assessment and treatment guidelines for hip disorders in young adults. Clin Orthop Relat Res. 2005; 441:168-79.
5. Poultsides LA, Bedi A, Kelly BT. An algorithmic approach to mechanical hip pain. HSS J. 2012;8(3):213-24
6. Morelli V, Smith V. Groin injuries in athletes. Am Fam Physician. 2001 Oct 15;64(8):1405-14.
7. Kerbel YE, Smith CM, Prodrromo JP, et al. Epidemiology of Hip and Groin Injuries in Collegiate Athletes in the United States. Orthop J Sports Med. 2018. 11;6(5)
8. Ekstrand J, Hägglund M, Waldén M. Injury incidence and injury patterns in professional football: the UEFA injury study. Br J Sports Med. 2011. 45:553-558
9. Lundgårdh F, Svensson K, Alricsson M. Epidemiology of hip and groin injuries in Swedish male first football league. Knee Surg Sports Traumatol Arthrosc. 2019 Mar 20. doi: 10.1007/s00167-019-05470-x.
10. Waldén M, Hägglund M, Ekstrand J. The epidemiology of groin injury in senior football: a systematic review of prospective studies. Br J Sports Med. 2015. 49:792-797
11. Werner J, Hägglund M, Ekstrand J, et al. Hip and groin time-loss injuries decreased slightly but injury burden remained constant in men's professional football: the 15-year prospective UEFA Elite Club Injury Study. Br J Sports Med. 2019. 53(9):539-546.
12. Kiel J, Kaiser K. Adductor Strain. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2019 Jan-2018 Dec 13.
13. Moore KL, Agur AMR. (2006). Temel Klinik Anatomi. (2. Baskı). (Elban A, Barut Ç, Ersoy M, Çev. Ed.) Ankara: Güneş Kitabevi
14. Tyler TF, Silvers HJ, Gerhardt MB, Nicholas SJ. Groin injuries in sports medicine. Sports Health. 2010 May;2(3):231-6
15. Wiesel SW.(2015). Ortopedik Cerrahi Ameliyat Teknikleri Cilt 1.(Başbozkurt M, Bölükbaşı S, Öztürk AM, Şenköylü A, Yıldız C, Çev. Ed.) Ankara: Güneş Tıp Kitabevi
16. Hölmich P. Long-standing groin pain in sportspeople falls into three primary patterns, a "clinical entity" approach: a prospective study of 207 patients. Br J Sports Med. 2007 Apr;41(4):247-52

17. Meyers WC, Foley DP, Garrett WE, et al. Mandlebaum BR. Management of severe lower abdominal or inguinal pain in high-performance athletes. Am J Sports Med. 2000 Jan-Feb;28(1):2-8
18. Strauss EJ, Campbell K, Bosco JA. Analysis of the cross-sectional area of the adductor longus tendon: a descriptive anatomic study. Am J Sports Med. 2007 Jun;35(6):996-9. Epub 2007 Feb 16.
19. Tuite DJ, Finegan PJ, Saliaris AP, et al. Anatomy of the proximal musculotendinous junction of the adductor longus muscle. Knee Surg Sports Traumatol Arthrosc. 1998;6(2):134-7.
20. Tegner Y, Lorentzon R. Ice hockey injuries: incidence, nature and causes. Br J Sports Med. 1991;25(2):87-89.
21. Lynch SA, Renstrom PA. Groin injuries in sport: treatment strategies. Sports Med. 1999;28(2):137-144.
22. Hoelmich P. Adductor-related groin pain in athletes. Sports Med Arthroscopy Rev 1997;5:285-91.
23. Morelli V, Weaver V. Groin injuries and groin pain in athletes: part 1. Prim Care. 2005 Mar;32(1):163-83.
24. Stoller D, Sampson T, Bredella M. Magnetic Resonance Imaging in Orthopaedics and Sports Medicine, 3rd ed. Baltimore & Philadelphia: Lippincott Williams & Wilkins; 2007.
25. Dahan R. Rehabilitation of muscle-tendon injuries to the hip, pelvis, and groin areas. Sports Med Arthroscopy Rev 1997;3:326-33.
26. Holmich P, Uhrskou P, Ulnits L, et al. Effectiveness of active physical training as treatment for long-standing adductor-related groin pain in athletes: randomised trial. Lancet 1999;353:439-43
27. Tyler T, Nicholas S, Campbell R, et al. The association of hip strength and flexibility with the incidence of adductor muscle strains in Professional ice hockey players. Am J Sports Med 2001;29:124-128.
28. Tyler TF, Nicholas SJ, Campbell RJ, et al. The effectiveness of a preseason exercise program to prevent adductor muscle strains in professional ice hockey players. Am J Sports Med. 2002 Sep-Oct;30(5):680-3.
29. Schlegel T, Boublik M, Godfrey J. Complete proximal adductor longus ruptures in professional football players. Presented at American Orthopaedic Society for Sports Medicine Specialty Day, Chicago, March 25, 2006.
30. Verrall GM, Slavotinek JP, Fon GT, et al. Outcome of conservative management of athletic chronic groin injury diagnosed as pubic bone stress injury. Am J Sports Med. 2007 Mar;35(3):467-74.
31. Akermark C, Johansson C. Tenotomy of the adductor longus tendon in the treatment of chronic groin pain in athletes. Am J Sports Med 1992;20(6):640-3.
32. Harris JD, Griesser MJ, Best TM, et al. Treatment of proximal hamstring ruptures - a systematic review. Int J Sports Med. 2011 Jul;32(7):490-5
33. Connell D, Schneider-Kolsky M, Hoving J. Longitudinal study comparing sonographic and MRI assessments of acute and healing hamstring injuries. Am J Roentgenol 2004; 183: 975 - 984
34. Slavotinek J, Verrall G, Fon G. Hamstring injury in athletes: using MR imaging measurements to compare

- extent of muscle injury with amount of time lost from competition. *Am J Roentgenol* 2002; 179: 1621 – 1628
35. Petersen J, Hölmich P. Evidence based prevention of hamstring injuries in sport. *Br J Sports Med.* 2005 Jun;39(6):319-23. Review
  36. Erickson LN, Sherry MA. Rehabilitation and return to sport after hamstring strain injury. *J Sport Health Sci.* 2017 Sep;6(3):262-270
  37. Askling C, Lund H, Saartok T, et al. Self-reported hamstring injuries in student dancers. *Scand J Med Sci Sports* 2002;12:230–5.
  38. Sallay PI, Friedman RL, Coogan PG, et al. Hamstring muscle injuries among water skiers. Functional outcome and prevention. *Am J Sports Med.* 1996;24:130–6.
  39. Dalton SL, Kerr ZY, Dompier TP. Epidemiology of hamstring strains in 25 NCAA sports in the 2009–2010 to 2013–2014 academic years. *Am J Sports Med* 2015;43:2671–9.
  40. Cross KM, Gurka KK, Conaway M, et al. Hamstring strain incidence between genders and sports in NCAA athletics. *Athl Ther Today* 2010;2:124–30.
  41. Feeley BT, Kennelly S, Barnes RP, et al. Epidemiology of national football league training camp injuries from 1998 to 2007. *Am J Sports Med* 2008;36:1597–603.
  42. Ekstrand J, Häggglund M, Waldén M. Epidemiology of muscle injuries in professional football (soccer). *Am J Sports Med* 2011;39:1226–32.
  43. Chu SK, Rho ME. Hamstring Injuries in the Athlete: Diagnosis, Treatment, and Return to Play. *Curr Sports Med Rep.* 2016 May-Jun;15(3):184-90.
  44. Orchard J, Seward H. Epidemiology of injuries in the Australian Football League, seasons 1997–2000. *British journal of sports medicine.* 2002; 36(1):39–44.
  45. Hawkins RD, Hulse MA, Wilkinson C, et al. The association football medical research programme: an audit of injuries in professional football. *British journal of sports medicine.* 2001; 35(1):43–47.
  46. Opar DA, Drezner J, Shield A, et al. Acute hamstring strain injury in track-and-field athletes: a 3-year observational study at the Penn Relay Carnival. *Scand J Med Sci Sports* 2014;24:e254–9
  47. Heiderscheit BC, Sherry MA, Silder A, et al. Hamstring strain injuries: recommendations for diagnosis, rehabilitation, and injury prevention. *The Journal of orthopaedic and sports physical therapy.* 2010; 40(2):67–81.
  48. Orchard J, Best TM, Verrall GM. Return to play following muscle strains. *Clinical journal of sport medicine : official journal of the Canadian Academy of Sport Medicine.* 2005; 15(6):436–441.
  49. Sherry MA, Johnston TS, Heiderscheit BC. Rehabilitation of acute hamstring strain injuries. *Clinics in sports medicine.* 2015; 34(2):263–284.
  50. Ropiak CR, Bosco JA. Hamstring injuries. *Bull NYU Hosp Jt Dis.* 2012;70(1):41-8.
  51. Askling CM, Tengvar M, Saartok T, et al. Acute first-time hamstring strains during high-speed running: a longitudinal study including clinical and magnetic resonance imaging findings. *The American journal of sports medicine.* 2007; 35(2):197–206. [
  52. Askling CM, Tengvar M, Saartok T, et al. Acute first-time hamstring strains during slow-speed stretching: clinical, magnetic resonance imaging, and recovery characteristics. *The American journal of sports medicine.* 2007; 35(10):1716–1724.
  53. Harris JD, Griesser MJ, Best TM, et al. Treatment of proximal hamstring ruptures - a systematic review. *Int J Sports Med.* 2011 Jul;32(7):490-5.
  54. Orchard J, Best T. The management of muscle strain injuries: an early return versus the risk of recurrence. *Clin J Sports Med* 2002;12: 3-5
  55. Cohen S, Bradley J. Acute proximal hamstring rupture. *J Am Acad Orthop Surg* 2007; 15: 350 – 355
  56. Klingele KE, Sallay PI. Surgical repair of complete proximal hamstring tendon rupture. *Am J Sports Med.* 2002 Sep-Oct;30(5):742-7.
  57. Lempainen L, Sarimo J, Heikkilä J, et al. Surgical treatment of partial tears of the proximal origin of the hamstring muscles. *Br J Sports Med.* 2006 Aug;40(8):688-91.
  58. Wood D, Packham I, Trikha S, et al. Avulsion of the proximal hamstring origin. *J Bone Joint Surg Am* 2008; 90:2365 – 2374
  59. Tsukada S, Niga S, Nihei T, et al. Iliopsoas Disorder in Athletes with Groin Pain: Prevalence in 638 Consecutive Patients Assessed with MRI and Clinical Results in 134 Patients with Signal Intensity Changes in the Iliopsoas. *JB JS Open Access.* 2018 Mar 12;3(1)
  60. Serner A, Tol JL, Jomaah N, et al. Diagnosis of acute groin injuries: a prospective study of 110 athletes. *Am J Sports Med.* 2015 Aug;43(8):1857-64.
  61. Rankin AT, Bleakley CM, et al. Hip joint pathology as a leading cause of groin pain in the sporting population: a 6-year review of 894 cases. *Am J Sports Med.* 2015 Jul;43(7):1698-703.
  62. J Werner, Häggglund M, Waldén M, et al. UEFA injury study: a prospective study of hip and groin injuries in professional football over seven consecutive seasons, 2009, *British journal of sports medicine,* (43), 13, 1036-40.
  63. Anderson K, Strickland SM, Warren R. Hip and groin injuries in athletes. *Am J Sports Med* 2001;29(4):521-533.
  64. DC Janse van Rensburg, MD Velleman A Jansen van Rensburg, et al. Iliopsoas haematoma in a rugby player. *S Afr J Sports Med* 2015;27(2):55-57.
  65. Patel A, Calfee R, Thakur N, et al. Non-operative management of femoral neuropathy secondary to a traumatic iliacus haematoma in an adolescent. *J Bone Joint Surg Br* 2008;90(10):1380-1381.
  66. Conesa X, Ares O, Seijas R. Massive psoas haematoma causing lumbar plexus palsy: A case report. *J Orthop Surg (Hong Kong)* 2012;20(1):94-97.
  67. Basheer A, Jain R, Anton T, et al. Bilateral iliopsoas hematoma: Case report and literature review. *Surg Neurol Int* 2013;4:121-121.
  68. Johnston CA, Wiley JP, Lindsay DM, et al. Iliopsoas bursitis and tendinitis. *A review. Sports Med* 1998;25(4):271–83.
  69. Taylor GR, Clarke NM. Surgical release of the snapping iliopsoas tendon. *J Bone Joint Surg Br* 1995;77(6):881–3.