

Literaturverzeichnisse 2016

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Literatur

- Abate M, Scuccimarra T, Vanni D, Pantalone A, Salini V: Femoroacetabular impingement: is hyaluronic acid effective? *Knee Surg Sports Traumatol Arthrosc.* 2014; 22: 889–92
- Abate M, Schiavone C, Salini V: Hyaluronic acid in ankle osteoarthritis: why evidence of efficacy is still lacking? *Clin Exp Rheumatol.* 2012; 30: 277–81
- Abbott T, Altmann RD, Dirnef R et al.: Do hyaluronic acid injections delay total knee replacement surgery? *Arthritis Rheum* 2013; 65: 910–1
- Adverse effects associated with non-opioid and opioid treatment in patients with chronic pain. *Clin Drug Investig.* 2012; 32 Suppl 1: 53–63
- Aihara S, Murakami N, Ishii R et al.: Effects of sodium hyaluronate on the nociceptive response of rats with experimentally induced arthritis. *Nippon Yakurigaku Zasshi* 1992; 100: 359–65
- Atchia I, Kane D, Reed MR, Isaacs JD, Birrell F: Efficacy of a single ultrasound-guided injection for the treatment of hip osteoarthritis. *Ann Rheum Dis.* 2011; 70: 110–6
- Avouac J, Gossec L, Dougados M: Efficacy and safety of opioids for osteoarthritis: a meta-analysis of randomized controlled trials. *Osteoarthritis Cartilage* 2007; 15: 957–65
- Balazs E: The physical properties of synovial fluid and the specific role of hyaluronic acid. In Helfet AJ (ed) *Disorders of the knee.* Philadelphia: Lippincott, 1982: 61–74
- Bannuru RR, Schmid CH, Kent DM, Vaysbrot EE, Wong JB, McAlindon TE: Comparative Effectiveness of Pharmacologic Interventions for Knee Osteoarthritis: A Systematic Review and Network Meta-analysis. *Ann Intern Med.* 2015; 162: 46–54
- Bannuru RR, Vaysbrot EE, Sullivan MC, McAlindon TE: Relative efficacy of hyaluronic acid in comparison with NSAIDs for knee osteoarthritis: a systematic review and metaanalysis. *Semin Arthritis Rheum* 2014; 43: 593–99
- Bannuru RR, Vaysbrot EE, Sullivan MC, McAlindon TE: Relative efficacy of hyaluronic acid in comparison with NSAIDs for knee osteoarthritis: a systematic review and meta-analysis. *Semin Arthritis Rheum* 2013; 43: 593–9
- Bannuru RR, Natov NS, Dasi UR et al.: Therapeutic trajectory following intra-articular hyaluronic acid injection in knee osteoarthritis-metaanalysis. *Osteoarthritis Cartilage* 2011; 19: 611–19
- Bannuru RR, Natov NS, Obadan IE, Price LL, Schmid CH, McAlindon TE: Therapeutic trajectory of hyaluronic acid versus corticosteroids in the treatment of knee osteoarthritis: a systematic review and meta-analysis. *Arthritis Rheum* 2009; 61: 1704–11
- Bellamy N, Campbell J, Robinson V, Gee T, Bourne R, Wells G: Intraarticular corticosteroid for treatment of osteoarthritis of the knee. *Cochrane Database Syst Rev* 2006; CD005328 [review]
- Bjorndal JM, Ljunggren AE, Klovning A, Slørdal L: Non-steroidal anti-inflammatory drugs, including cyclo-oxygenase-2 inhibitors, in osteoarthritic knee pain: meta-analysis of randomised placebo controlled trials. *BMJ* 2004;329: 1317–22
- Blaine T, Moskowitz R, Udell J: Treatment of persistent shoulder pain with sodium hyaluronate: a randomized, controlled trial. A multicenter study. *J Bone Joint Surg Am.* 2008; 90: 970–9
- Blieden M, Paramore LC, Shah D, Ben-Joseph R: A perspective on the epidemiology of acetaminophen exposure and toxicity in the United States. *Expert Rev Clin Pharmacol.* 2014; 7: 341–8
- Bruyère , Cooper C, Pelletier JP et al.: An algorithm recommendation for the management of knee osteoarthritis in Europe and internationally: A report from a task force of the European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis (ESCEO). *Semin Arthritis Rheum* 2014; 44: 253–63
- Campbell J, Bellamy N, Gee T: Differences between systematic reviews/meta-analyses of hyaluronic acid/hyaluronan/hylan in osteoarthritis of the knee. *Osteoarthritis Cartilage* 2007; 15: 1424–36
- Cardone DA, Tallia AF: Diagnostic and therapeutic injection of the hip and knee. *Am Fam Physician.* 2003; 67: 2147–52
- Chang KV, Hsiao MY, Chen WS, Wang TG, Chien KL: Effectiveness of intra-articular hyaluronic acid for ankle osteoarthritis treatment: a systematic review and meta-analysis. *Arch Phys Med Rehabil.* 2013; 94: 951–60
- Chevalier X, Jerosch J, Goupille P: Single, intra-articular treatment with 6 ml hylan G-F 20 in patients with symptomatic primary osteoarthritis of the knee: a randomised, multicentre, double-blind, placebo controlled trial. *Ann Rheum Dis.* 2010; 69: 113–9
- Colen S, van den Bekerom MP, Mulier M, Haverkamp D: Hyaluronic acid in the treatment of knee osteoarthritis: a systematic review and meta-analysis with emphasis on the efficacy of different products. *BioDrugs* 2012 ;26: 257–68
- Conrozier T, Bossert M, Walliser-Lohse A, Sondag M, Balblanc JC: Viscosupplementation with HANOX-M-XL is effective in moderate hip osteoarthritis but is not an alternative to hip joint surgery in patients with severe disease. Results of a clinical survey in 191 patients treated in daily practice. *European journal of Musculoskeletal Diseases* 2014; 3: 49–55
- Conrozier T, Mathieu P, Rinaudo M: Mannitol allows to preserve the elasto-viscous properties of hyaluronic acid in an in vitro model of oxidative stress. *Rheumatology and Therapy* 2014; doi:1007/s40744-014-0001-8
- Conrozier T, Balblanc JC, Rchette P et al.: Early effect of hyaluronic acid intra-articular injections on serum and urine biomarkers in patients with knee osteoarthritis: An open-label observational prospective study. *J Orthop Res* 2012; 30: 679–85
- Conrozier T, Couris CM, Mathieu P et al.: Safety, efficacy and predictive factors of efficacy of a single intra-articular injection of non-animal-stabilized-hyaluronic-acid in the hip joint: results of a standardized follow-up of patients treated for hip osteoarthritis in daily practice. *Arch Orthop Trauma Surg.* 2009; 129: 843–8
- Conrozier T, Jerosch J, Beks P et al.: Prospective, multi-centre, randomised evaluation of the safety and efficacy of five dosing regimens of viscosupplementation with hylan G-F 20 in patients with symptomatic tibio-femoral osteoarthritis: a pilot study. *Arch Orthop Trauma Surg.* 2009;129: 417–23
- Conrozier T, Chevalier X: Long-term experience with hylan GF-20 in the treatment of knee osteoarthritis. *Expert Opin Pharmacother.* 2008; 9: 1797–804
- Conrozier T, Vignon E: Is there evidence to support the inclusion of viscosupplementation in the treatment paradigm for patients with hip osteoarthritis? *Clin Exp Rheumatol.* 2005; 23: 711–6
- Conrozier T, Mathieu P, Schott AM et al.: Factors predicting long-term efficacy of Hylan GF-20 viscosupplementati-

- on in knee osteoarthritis. *Joint Bone Spine*. 2003; 70: 128–33
32. de Campos GC, Rezende MU, Pailo AF, Frucchi R, Camargo OP: Adding triamcinolone improves viscosupplementation: a randomized clinical trial. *Clin Orthop Relat Res*. 2013; 471: 613–20
 33. DeGroot H 3rd, Uzunishvili S, Weir R, Al-omari A, Gomes B: Intra-articular injection of hyaluronic acid is not superior to saline solution injection for ankle arthritis: a randomized, double-blind, placebo-controlled study. *J Bone Joint Surg Am*. 2012; 94: 2–8
 34. Di Sante L, Cacchio A, Scettri P, Paoloni M, Ioppolo F, Santilli V: Ultrasound-guided procedure for the treatment of trapeziometacarpal osteoarthritis. *Clin Rheumatol*. 2011; 30: 1195–200
 35. Douglas RJ: Aspiration and injection of the knee joint: approach portal. *Knee Surg Relat Res*. 2014; 26: 1–6
 36. Elmorsy S, Funakoshi T, Sasazawa F, Todoh M, Tadano S, Iwasaki N: Chondroprotective effects of high-molecular-weight cross-linked hyaluronic acid in a rabbit knee osteoarthritis model. *Osteoarthritis Cartilage*. 2014: 121–7
 37. Fernandez Lopez JC, Ruano-Ravina A: Efficacy and safety of intraarticular hyaluronic acid in the treatment of hip osteoarthritis: a systematic review. *Osteoarthritis Cartilage* 2006; 14: 1306–11
 38. Forrester JV, Balsz EA: Inhibition of phagocytosis by high molecular weight hyaluronate. *Immunology* 1980; 40: 435–46
 39. Frean SP, Abraham LA, Lees P: In vitro stimulation of equine articular cartilage proteoglycan synthesis by hyaluronan and carprofen. *Res Vet Sci* 1999; 67: 183–90
 40. Fuchs S, Mönikes R, Wohlmeiner A, Heyse T: Intra-articular hyaluronic acid compared with corticoid injections for the treatment of rhizarthrosis. *Osteoarthritis Cartilage*. 2006; 14: 82–8
 41. Goldberg VM, Coutts RD: Pseudoseptic reactions to hylan viscosupplementation: diagnosis and treatment. *Clin Orthop Relat Res*. 2004; 419: 130–7
 42. Gomis A, Miralles A, Schmidt RF, Belmonte C: Nozizeptive nerve activity in an experimental model of knee joint osteoarthritis of the guinea pig: Effect of intraarticular hyaluronan application. *Pain* 2007; 130: 126–36
 43. Goto M, Hanyu T, Yoshio T et al.: intra-articular injection of hyaluronate (SI-6601D) improves joint pain and prostaglandin E2 Levels in rheumatoid arthritis: a multicenter clinical trial. *Clin Exp Rheumatol* 2001; 19: 377–83
 44. Grecomoro G, Piccione F, Letizia G: Therapeutic synergism between hyaluronic acid and dexamethasone in the intra-articular treatment of osteoarthritis of the knee: a preliminary open study. *Curr Med Res Opin*. 1992; 13: 49–55
 45. Hamburger MI, Laxhanpal S, Mooar PA, Oster D: Intra-articular hyaluronans: a review of product-specific safety profiles. *Semin Arthritis Rheum*. 2003; 32: 296–309
 46. Han SH, Park do Y, Kim TH: Prognostic factors after intra-articular hyaluronic acid injection in ankle osteoarthritis. *Yonsei Med J*. 2014; 55: 1080–6
 47. Hatoum HT, Fierlinger AL, Lin SJ, Altman RD: Cost-effectiveness analysis of intra-articular injections of a high molecular weight bioengineered hyaluronic acid for the treatment of osteoarthritis knee pain. *J Med Econ*. 2014; 17: 326–37
 48. Heisel J, Kipshoven C: Safety and efficacy findings from a non-interventional study of a new hyaluronic acid/sorbitol formulation (GO-ON(R) matrix) for intra-articular injection to relieve pain and disability in osteoarthritis patients. *Drug Res* 2013; 63: 445–9
 49. Hempfling H: Intra-articular hyaluronic acid after knee arthroscopy: a two year study. *Knee Surg Sports Traumatol Arthrosc* 2007; 15: 537–46
 50. Henrotin Yves, Raghu Raman, Pascal Richette: Consensus statement on viscosupplementation with hyaluronic acid for the management of osteoarthritis. *Seminars in Rheumatism and Arthritis* 2016; 45: 4 Suppl, 3–11
 51. Henrotin Y, Chevalier X, Deberg M et al.: Early decrease of serum biomarkers of type II collagen degradation (Coll2-1) and joint inflammation (Coll2-1 NO) by hyaluronic acid intra articular injections in patients with knee osteoarthritis: a research study part of the Biovisco study. *J Orthop Res*. 2013; 31: 901–7
 52. Heyworth BE, Lee JH, Kim PD, Lipton CB, Strauch RJ, Rosenwasser MP: Hylan versus corticosteroid versus placebo for treatment of basal joint arthritis: a prospective, randomized, double-blinded clinical trial. *J Hand Surg Am*. 2008; 33: 40–8
 53. Hochberg MC, Altman RD, April KT et al.: American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee. *Arthritis Care Res* 2012; 64: 465–74
 54. Homandberg GA, Hui F, Wen C, Kuettner KE, Williams JM: Hyaluronic acid suppresses fibronectin fragment mediated cartilage chondrolysis; *Osteoarth. Cartilage* 1997; 5: 309–19
 55. Ingegnoli F, Soldi A, Meroni PL: Power Doppler sonography and clinical monitoring for hyaluronic Acid treatment of rhizarthrosis: a pilot study. *J Hand Microsurg*. 2011; 3: 51–4
 56. Jevsevar DS: Treatment of osteoarthritis of the knee: evidence-based guideline, 2nd edition. *J Am Acad Orthop Surg*. 2013; 21: 571–6
 57. Kahan A, Llleu PL, Salin L: Prospective randomized study comparing the medico-economic benefits of Hylan GF-20 vs conventional treatment in knee osteoarthritis. *Joint Bone Spine*. 2003; 7: 276–81
 58. Karakurum G, Karakok M, Tarakcioglu M, Kocer NE, Kocabas R, Bagci C: Comparative effect of intra-articular administration of hyaluronan and/or cortisone with evaluation of malondialdehyde on degenerative osteoarthritis of the rabbit's knee. *Tohoku J Exp Med*. 2003; 199: 127–34
 59. Kawasaki K, Ochi M, Uchyo Y, Adachi N, Matsusaki M: Hyaluronic acid enhances proliferation and chondroitin sulphate synthesis in cultured chondrocytes embedded in collagen gels. *J Cell Physiol* 1999; 179: 142–148
 60. Kirchner M, Marshall D: A double-blind randomized controlled trial comparing alternate forms of high molecular weight hyaluronan for the treatment of osteoarthritis of the knee. *Osteoarthritis Cartilage* 2006 ;14: 154–62
 61. Kobayashi K, Amiel M, Harwood FL et al.: The long term effects of hyaluronan during development of osteoarthritis following partial meniscectomy in a rabbit model. *Osteoarthritis and Cartilage* 2000; 8: 359–65
 62. Kwon YW, Eisenberg G, Zuckerman JD: Sodium hyaluronate for the treatment of chronic shoulder pain associated with glenohumeral osteoarthritis: a multicenter, randomized, double-blind, placebo-controlled trial. *J Shoulder Elbow Surg*. 2013; 22: 584–94
 63. Labianca R, Sarzi-Puttini P, Zuccaro SM, Cherubino P, Vellucci R, Fornasari D: Adverse effects associated with non-opioid and opioid treatment in patients with chronic pain. *Clin Drug Investig*. 2012; 32 Suppl 1: 53–63
 64. Larsen NE, Dursema HD, Pollak CT, Skrabut EM: Clearance kinetics of a hylan-based viscosupplement after intra-articular and intravenous administration in animal models. *J. Biomed. Mater. Res. B Appl. Biomater.* 2011; doi:10.1002/jbm.b. 31971
 65. Li P, Raitcheva D, Hawes M et al.: Hylan G-F 20 maintains cartilage integrity and decreases osteophyte formation in osteoarthritis through both anabolic and anti-catabolic mechanisms. *Osteoarthritis Cartilage*. 2012; 20: 1336–46
 66. Lindqvist U, Tolmachev V, Kairemo K, Aström G, Jonsson E, Lundqvist H: Elimination of stabilised hyaluronan from the knee joint in healthy men. *Clin. Pharmacokinet*. 2002, 4, 603–613
 67. Lucas Y, Hernandez J, Darcel V, Chauveaux D, Laffenêtre O: Viscosupplementation of the ankle: a prospective study with an average follow-up of 45.5 months. *Orthop Traumatol Surg Res*. 2013; 99: 593–9

68. Mandl LA, Hotchkiss RN, Adler RS et al.: Injectable hyaluronan for the treatment of carpometacarpal osteoarthritis: open label pilot trial. *Curr Med Res Opin.* 2009 ;25: 2103–8
69. Mandl LA, Hotchkiss RN, Adler RS, Ariola LA, Katz JN: Can the carpometacarpal joint be injected accurately in the office setting? Implications for therapy. *J Rheumatol.* 2006; 33: 1137–9
70. Marshall KW, Manolopoulos V, Mancor K, Staples J, Damyanovich A: Amelioration of disease severity by intraarticular hylan therapy in bilateral canine osteoarthritis. *J Orthop Res* 2000; 18: 416–425
71. McAlindon TE, Bannuru RR, Sullivan MC et al.: OARSI guidelines for the non-surgical management of knee osteoarthritis. *Osteoarthritis Cartilage.* 2014; 22: 363–88
72. Migliore A, Tormenta S, Laganà B et al.: Safety of intra-articular hip injection of hyaluronic acid products by ultrasound guidance: an open study from ANTIAGE register. *Eur Rev Med Pharmacol Sci.* 2013 ;17: 1752–9
73. Migliore A, Bella A, Bisignani M et al.: Total hip replacement rate in a cohort of patients affected by symptomatic hip osteoarthritis following intra-articular sodium hyaluronate (MW 1,500–2,000 kDa) ORTOBRIX study. *Clin Rheumatol.* 2012; 31: 1187–96
74. Migliore A, Bizzi E, Massafra U et al.: The impact of treatment with hylan G-F 20 on progression to total hip arthroplasty in patients with symptomatic hip OA: a retrospective study. *Curr Med Res Opin.* 2012; 28: 755–60
75. Migliore A, Tormenta S, Martin Martin LS et al.: The symptomatic effects of intra-articular administration of hylan G-F 20 on osteoarthritis of the hip: clinical data of 6 months follow-up. *Clin Rheumatol.* 2006; 25: 389–93
76. Miller LE, Block JE: An 8-Week Knee Osteoarthritis Treatment Program of Hyaluronic Acid Injection, Deliberate Physical Rehabilitation, and Patient Education is Cost Effective at 2 Years Follow-up: The OsteoArthritis Centers of America (SM) Experience. *Clin Med Insights Arthritis Musculoskelet Disord.* 2014; 7: 49–55
77. Miller LE, Block JE: US-approved Intra-articular hyaluronic acid injections are safe and effective in patients with knee osteoarthritis: Systematic review and meta-analysis of randomized saline-controlled trials. *Clin Med Insights Arthritis Musculoskelet Disord* 2013; 6: 57–63
78. Monfort J, Rotés-Sala D, Segalés N et al.: Comparative efficacy of intra-articular hyaluronic acid and corticoid injections in osteoarthritis of the first carpometacarpal joint: Results of a 6-month single-masked randomized study. *Joint Bone Spine.* 2015; 82: 116–21
79. Moreland LW: Intra-articular hyaluronan (hyaluronic acid) and hylans for the treatment of osteoarthritis: mechanisms of action. *Arthritis Res Ther.* 2003; 5: 54–67
80. Noël E, Hardy P, Hagena FW et al.: Efficacy and safety of Hylan G-F 20 in shoulder osteoarthritis with an intact rotator cuff. Open-label prospective multicenter study. *Joint Bone Spine.* 2009; 76: 670–3
81. Ozturk C, Atamaz F, Hepguler S, Argin M, Arkun R: The safety and efficacy of intraarticular hyaluronan with/without corticosteroid in knee osteoarthritis: 1-year, single-blind, randomized study. *Rheumatol Int.* 2006; 26: 314–9
82. Peluso GF, Perbellini A, Tajana GF: The effect of high and low molecular weight hyaluronic acid on mitogen induced lymphocyte proliferation. *Curr Ther Res* 1990; 47: 437–43
83. Punzi L, Schiavon F, Cavasin F, Ramonda R, Gambari PF, Todesco S: The influence of intra-articular hyaluronic acid on PGE2 and cAMP of synovial fluid. *Clin Exp Rheumatol* 1989; 7: 247–50
84. Qvistgaard E, Christensen R, Torp-Pedersen S, Bliddal H: Intra-articular treatment of hip osteoarthritis: a randomized trial of hyaluronic acid, corticosteroid, and isotonic saline. *Osteoarthritis Cartilage* 2006; 14: 163–70
85. Rannou F, Dimet J, Boutron I et al.: Splint for base-of-thumb osteoarthritis: a randomized trial. *Ann Intern Med.* 2009. 19; 150: 661–9
86. Raveendhara R, Bannuru MD, Christopher H et al.: Comparative Effectiveness of Pharmacologic Interventions for Knee Osteoarthritis: A Systematic Review and Network Meta-analysis. *Ann Intern Med.* 2015; 162: 46–54
87. Reichenbach R, Blank S, Rutjes AW et al.: Hylan versus hyaluroniv acid for osteoarthritis of the knee: a systematic review and meta-analysis. *Arthritis Rheum* 2007; 57: 1410–18
88. Richette P, Ravaud P, Conrozier T et al.: Effect of hyaluronic acid in symptomatic hip osteoarthritis: a multicenter, randomized, placebo-controlled trial. *Arthritis Rheum.* 2009; 60: 824–30
89. Rutjes AW, Jüni P, da Costa BR et al.: Viscosupplementation for osteoarthritis of the knee: a systematic review and meta-analysis. *Ann Intern Med.* 2012 ;157: 180–91
90. Salk RS, Chang TJ, D'Costa WF, Soomekh DJ, Grogan KA: Sodium hyaluronate in the treatment of osteoarthritis of the ankle: a controlled, randomized, double-blind pilot study. *J Bone Joint Surg Am.* 2006; 88: 295–302
91. Smith MM, Gosh P: The synthesis of hyaluronic acid by human synovial fibroblasts is influenced by the nature of the hyaluronate in the extracellular environment. *Rheumatol Int* 1987; 7: 113–22
92. Stahl S, Karsh-Zafirir I, Ratzon N, Rosenberg N: Comparison of intraarticular injection of depot corticosteroid and hyaluronic acid for treatment of degenerative trapeziometacarpal joints. *J Clin Rheumatol.* 2005; 11: 299–302
93. Sun SF, Chou YJ, Hsu CW et al.: Efficacy of intra-articular hyaluronic acid in patients with osteoarthritis of the ankle: a prospective study. *Osteoarthritis Cartilage.* 2006; 14: 867–74
94. Tobetto K, Kasai K, Akatsuka M, Yasui T, Ando T, Hirano S: Inhibitory effects of hyaluronan on neutrophil-mediated cartilage degradation; *Connect Tissue Res* 1993; 29: 181–90
95. Toh EM, Prasad PS, Teanby D: Correlating the efficacy of knee viscosupplementation with osteoarthritic changes on roentgenological examination. *Knee.* 2002; 9: 321–30
96. van den Bekerom MP, Lamme B, Sermon A, Mulier M: What is the evidence for viscosupplementation in the treatment of patients with hip osteoarthritis? Systematic review of the literature. *Arch Orthop Trauma Surg* 2008; 128: 815–23
97. Vavken P, Dorotka R: A systematic review of conflicting meta-analyses in orthopaedic surgery. *Clin Orthop Relat Res* 2009; 467: 2723–35
98. Waddell DD, Marino AA: Chronic knee effusions in patients with advanced osteoarthritis: implications for functional outcome of viscosupplementation. *J Knee Surg.* 2007; 20: 181–4
99. Waddell DD: Viscosupplementation with hyaluronans for osteoarthritis of the knee: clinical efficacy and economic implications. *Drugs Aging.* 2007; 24: 629–42
100. Wang Y, Hall S, Hanna Fet al.: Effects of Hylan G-F 20 supplementation on cartilage preservation detected by magnetic resonance imaging in osteoarthritis of the knee: a two-year single-blind clinical trial. *BMC Musculoskelet Disord.* 2011; 12: 195
101. Wisniewski SJ, Smith J, Patterson DG, Carmichael SW, Pawlina W: Ultrasound-guided versus nonguided tibiotalar joint and sinus tarsi injections: a cadaveric study. *PM R.* 2010; 2: 277–81
102. Zóboli AA, de Rezende MU, de Campos GC, Pasqualin T, Frucchi R, de Camargo OP: Prospective randomized clinical trial: single and weekly viscosupplementation. *Acta Ortop Bras.* 2013; 21: 271–5

Vollständige Literatur zu Wolf Petersen et al.: Prävention von Knieverletzungen und VKB-Rupturen OUP 10-2016

Literatur

- Ageberg E, Bennell KL, Hunt MA, Simic M, Roos EM, Creaby MW: Validity and inter-rater reliability of mediolateral knee motion observed during a single-imb mini squat. *BMC Musculoskelet Disord* 2010; 11: 265
- Ajuied A, Wong F, Smith C et al.: Anterior Cruciate Ligament Injury and Radiologic Progression of Knee Osteoarthritis: A Systematic Review and Meta-analysis. *Am J Sports Med.* 2013; Nov 8
- Alentorn-Geli E, Myer GD, Silvers HJ et al.: Prevention of non-contact anterior cruciate ligament injuries in soccer players. Part 1: Mechanisms of injury and underlying risk factors. *Knee Surg Sports Traumatol Arthrosc.* 2009; 17: 705–29
- Alentorn-Geli E, Myer GD, Silvers HJ et al.: Prevention of non-contact anterior cruciate ligament injuries in soccer players. Part 2: a review of prevention programs aimed to modify risk factors and to reduce injury rates. *Knee Surg Sports Traumatol Arthrosc.* 2009; 17: 859–79
- Aune AK, Ekland A, Nordsetten L: Effect of quadriceps or hamstring contraction on the anterior shear force to anterior cruciate ligament failure: An in vivo study in the rat. *Acta Orthop Scand* 66 1995; 261–265
- Ardern CL, Webster KE, Taylor NF, Feller JA: Return to sport following anterior cruciate ligament reconstruction surgery: a systematic review and meta-analysis of the state of play. *Br J Sports Med.* 2011; 45: 596–606
- Bahr R, Lian O, Bahr O: A twofold reduction of acute ankle sprains in volleyball after the introduction of an injury prevention program: A prospective cohort study. *Scand J Med Sci Sports* 1997; 7: 172–177
- Barrata R, Solomonow M, Letson D, Chuinard R, D'Ambrosia R: Muscular coactivation: The role of the antagonist musculature in maintaining knee stability. *Am J Sports Med* 1988; 16: 113–122
- Boden BP, Dean GS, Feagin JA, Garrett WE: Mechanisms of anterior cruciate ligament injury. *Orthopaedics* 2000; 23: 573–578
- Boyle MJ, Butler RJ, Queen RM: Functional Movement Competency and Dynamic Balance After Anterior Cruciate Ligament Reconstruction in Adolescent Patients. *J Pediatr Orthop.* 2016; 36: 36–41
- Caraffa A, Cerulli G, Progetti M, Aisa G, Rizzo A: Prevention of anterior cruciate ligament injuries in soccer: A prospective controlled study of proprioceptive training. *Knee Surg Sports Traumatol Arthrosc* 1996; 4: 19–21
- Colby S, Franciscos A, Yu B, Krikendahl D, Finch M, Garret W: Electrimyographic and kinematic analysis of cutting maneuvers. *Am J Sports Med* 2000; 29: 234–240
- Cook G: Movement assessment: The Functional Movement Screen, 1998, Athletic Testing Service
- Cowling EJ, Steele JR: The effect of upper-limb motion on lower-limb muscle synchronicity. *J Bone Joint Surg* 2001; 83-A: 35–41
- Cowling EJ, Steele JR, McNair PJ: Effect of verbal instructions on muscle activity and risk of injury to the anterior cruciate ligament during landing. *Br J Sports Med* 2003; 37: 126–30
- Crossley KM, Zhang WJ, Schache AG, Bryant A, Cowan SM: Performance on the single-leg squat task indicates hip abductor muscle function. *Am J Sports Med* 2011; 39: 866–873
- Donnell-Fink LA, Klara K, Collins JE et al.: Effectiveness of Knee Injury and Anterior Cruciate Ligament Tear Prevention Programs: A Meta-Analysis. *PLoS One.* 2015; 10: e0144063
- Dorrel BS, Long T, Shaffer S, Myer GD: Evaluation of the Functional Movement Screen as an Injury Prediction Tool Among Active Adult Populations: A Systematic Review and Meta-analysis. *Sports Health* 2015; 7: 532–7
- Dunn WR, Spindler KP: Predictors of activity level 2 years after anterior cruciate ligament reconstruction (ACLR): a Multicenter Orthopaedic Outcomes Network (MOON) ACLR cohort study. *Am J Sports Med.* 2010; 38: 2040–2050
- Ettlinger CF, Johnson RJ, Shealy JE: A method to help reduce the risk of serious knee sprains incurred in alpine skiing. *Am J Sports Med* 1995; 23: 531–7
- Gilchrist J, Mandelbaum BR, Melancon H et al.: A randomized controlled trial to prevent noncontact anterior cruciate ligament injury in female collegiate soccer players. *Am J Sports Med.* 2008; 36: 1476–83
- Griffin LY: The Henning Program. In: Griffin LY (ed.) *Prevention of noncontact ACL injuries*, Rosemont, USA: American Academy of Orthopaedic Surgeons, 2000
- Griffis ND, Vequist SW, Yearout KM, Henning CE, Lynch MA: AOSSM Annual Meeting, Traverse City, Michigan, June 1989
- Grimm NL, Jacobs JC Jr, Kim J, Denney BS, Shea KG: Anterior Cruciate Ligament and Knee Injury Prevention Programs for Soccer Players: A Systematic Review and Meta-analysis. *Am J Sports Med.* 2014; Epub 2014/12/03. doi: 10.1177/0363546514556737 PMID: 25451790
- Hart L: Effect of stretching on sport injury risk: a review. *Clin J Sport Med.* 2005; 15: 113
- Hagood S, Solomonow M, Luo Z, D'Ambrosia R: The effect of joint velocity on the contribution of the antagonist musculature to knee stiffness and laxity. *Am J Sports Med.* 1990; 18: 182–187
- Hewett TE, Stroupe AL, Nance TA, Noyes FR: Plyometric training in female athletes: Decreased impact forces and hamstring torques. *Am J Sports Med* 1996; 24: 765–773
- Hewett TE, Lindefeld TN, Riccobene JV, Noyes FR: The effect of neuromuscular training on the incidence of knee injury in female athletes: A prospective study. *Am J Sports Med* 1999; 27: 699–706
- Hewett T, Ford K, Hoogenboom B, Myer G: Understanding and preventing ACL injuries: Current biomechanical and epidemiologic considerations – update 2010. *North American Journal of Sports Physical Therapy* 2010; 5: 234–243
- Hewett TE, Myer GD, Ford KR et al.: Biomechanical measures of neuromuscular control and valgus loading of the knee predict anterior cruciate ligament injury risk in female athletes: a prospective study. *Am J Sports Med.* 2005; 33: 492–501
- Hewett TE, Ford KR, Myer GD: Anterior cruciate ligament injuries in female athletes: Part 2, a metaanalysis of neuromuscular interventions aimed at injury prevention. *Am J Sports Med.* 2006; 34: 490–8
- Huston LJ, Woitys EM: Neuromuscular performance characteristics in elite female athletes. *Am J Sports Med* 1996; 24: 427–436
- Hirokawa S, Solomonow M, Baratta R, Zhou BH, D'Ambrosia R: Muscular co-contraction and control of knee stability. *J electromyogr Kinesiol* 1991; 1: 199–208
- Johnson RJ, Beynon BD, Nichols CE, Renstrom PA: The treatment of injuries of the anterior cruciate ligament. *J Bone Joint Surg Am* 1992; 74: 140–51

35. Kiani A, Hellquist E, Ahlqvist K, Gedeberg R, Michaelsson K, Byberg L: Prevention of soccer-related knee injuries in teenaged girls. *Archives of internal medicine*. 2010; 170: 43–9
36. Khayambashi K, Ghoddosi N, Straub RK, Powers CM: Hip Muscle Strength Predicts Noncontact Anterior Cruciate Ligament Injury in Male and Female Athletes: A Prospective Study. *Am J Sports Med*. 2015; Dec 8. pii: 0363546515616237
37. Lephart S, Riemann B: The role of mechanoreceptors in functional joint stability. In: Griffin LY (ed.) *Prevention of noncontact ACL injuries*, Rosemont, USA: American Academy of Orthopaedic Surgeons, 2000
38. Lephart S, Ferris CM, Riemann B, Myers JB, Fu F: Gender Differences in strength and lower extremity kinematics during landing. *Clin Orthop Rel Res* 2002; 401: 162–169
39. Leys T, Salmon L, Waller A, Linklater J, Pinczewski L: Clinical results and risk factors for reinjury 15 years after anterior cruciate ligament reconstruction: a prospective study of hamstring and patellar tendon grafts. *Am J Sports Med*. 2012; 40: 595–605
40. Lohmander LS, Ostberg A, Englund M, Roos H: High prevalence of knee osteoarthritis, pain, and functional limitations in female soccer players twelve years after anterior cruciate ligament injury. *Arthritis Rheum*. 2004; 50: 3145–52
41. Mandelbaum BR, Silvers HJ, Watanabe DS et al.: Effectiveness of a neuromuscular and proprioceptive training program in preventing anterior cruciate ligament injuries in female athletes: 2-year follow-up. *Am J Sports Med*. 2005; 33: 1003–10
42. Mayer SW, Queen RM, Taylor Det al.: Functional Testing Differences in Anterior Cruciate Ligament Reconstruction Patients Released Versus Not Released to Return to Sport. *Am J Sports Med*. 2015; 43: 1648–55
43. Mizner RL, Chmielewski TL, Toepke JJ, Toft KB: Comparison of 2-dimensional measurement techniques for predicting knee angle and moment during a drop vertical jump. *Clin J Sport Med*. 2012; 22: 221–7
44. Miyasaka KC, Daniel DM, Stone ML: The incidence of knee ligament injuries in the general population. *Am J Knee Surg* 1991; 4: 43–48
45. Myklebust G, Maehlum S Holm I, Bahr R: A prospective cohort study of anterior cruciate ligament injuries in elite Norwegian team handball. *Scand J Med Sci Sports* 1998; 8: 149–153
46. Myklebust G, Engebretsen L, Braekken IH, Skjølberg A, Olsen OE, Bahr R: Prevention of anterior cruciate ligament injuries in female team handball players: a prospective intervention study over three seasons. *Clin J Sport Med* 2003; 13: 71–8
47. Noyes FR, Barber-Westin SD, Fleckenstein C, Walsh C, West J: The drop-jump screening test: difference in lower limb control by gender and effect of neuromuscular training in female athletes. *Am J Sports Med*. 2005; 33: 197–207
48. Ortiz A, Trudelle-Jackson E, McConnell K, Wylie S: Effectiveness of a 6-week injury prevention program on kinematics and kinetic variables in adolescent female soccer players: a pilot study. *P R Health Sci J*. 2010; 29: 40–46
49. Olsen OE, Myklebust G, Engebretsen L, Holme I, Bahr R: Exercises to prevent lower limb injuries in youth sports: cluster randomised controlled trial. *BMJ*. 2005; 330: 449
50. Petersen W, Zantop T, Steensen M, Hypa A, Wessolowski T, Hassenpflug J: Prävention von Verletzungen im Handballsport: Erste Ergebnisse des Kieler Handball Präventionsprogrammes. *Sportverletzung Sportschaden* 2002; 16: 122–6
51. Petersen W: Does ACL reconstruction lead to degenerative joint disease or does it prevent osteoarthritis? How to read science. *Arthroscopy* 2012; 28: 448–50
52. W Petersen W, Zantop T, Rosenbaum D, Raschke M: Rupturen des vorderen Kreuzbandes bei weiblichen Athleten. Teil 1: Epidemiologie, Verletzungsmechanismen und Ursachen. *Dt. Zeitschr. Sportmed*. 2005; 56: 150–156
53. Petersen W, Zantop T, Rosenbaum D, Raschke M: Rupturen des vorderen Kreuzbandes bei weiblichen Athleten. Teil 2: Präventionsstrategien und Präventionsprogramme, *Dt. Zeitschr. Sportmed*. 2005; 56: 157–164
54. Petersen W, Braun C, Bock W et al.: A controlled prospective case control study of a prevention training program in female team handball players: the German experience. *Arch Orthop Trauma Surg*. 2005; 125: 614–21
55. Petersen W, Stöhr A, Ellermann A et al.: Wiederkehr zum Wettkampfsport nach VKB Rekonstruktion im Leistungssport – Empfehlungen der DKG Expertengruppe Ligament. *Orthop. Unfallchir. Praxis, im Druck*
56. Petersen W, Ellermann A, Gösele-Koppenburg et al.: Patellofemoral pain syndrome. *Knee Surg Sports Traumatol Arthrosc*. 2014; 22: 2264–7
57. Renstrom P, Ljungqvist A, Arendt E et al.: Non-contact ACL injuries in female athletes: an International Olympic Committee current concepts statement. *Br J Sports Med*. 2008; 42: 394–412
58. Schmidtlein O, Keller M, Kurz ET: Testbatterie für Aktive Functional Movement Screen. *Physiopraxis* 2013; 11: 26–32
59. Soderman K, Alfredson H, Pietila T, Werner S: Risk factors for leg injuries in female soccer players: a prospective investigation during one out-door season. *Knee Surg Sports Traumatol Arthrosc* 2001; 9: 313–21
60. Solomonow M, Baratta R, Zhou BH: The synergistic action of the anterior cruciate ligament and thigh muscles in maintaining joint stability. *Am J Sports Med* 1987; 15: 207–213
61. Soligard T, Myklebust G, Steffen K et al.: Comprehensive warm-up programme to prevent injuries in young female footballers: cluster randomised controlled trial. *BMJ*. 2008; 337: a2469. doi: 10.1136/bmj.a2469
62. Sugimoto D, Myer GD, Foss KD, Hewett TE: Dosage effects of neuromuscular training intervention to reduce anterior cruciate ligament injuries in female athletes: meta- and sub-group analyses. *Sports Med*. 2014; 44: 551–62
63. Teitz C: Video analysis of ACL injuries. In: Griffin LY (ed.) *Prevention of noncontact ACL injuries*, American Academy of Orthopaedic Surgeons, Rosemont, USA, 2000
64. Thacker SB, Stroup DE, Branche CM, Gilchrist J, Goodman RA, Weitman EA: The prevention of ankle sprains in sports. A systematic review of the literature. *Am J Sports Med* 1999; 27: 753–760
65. Thacker SB, Gilchrist J, Stroup DE, Kimsey CD Jr: The impact of stretching on sports injury risk: a systematic review of the literature. *Med Sci Sports Exerc* 2004; 36: 371–8
66. Verhagen E, van der Beek A, Twisk J, Bouter L, Bahr R, van Mechelen W: The effect of a proprioceptive balance board training program for the prevention of ankle sprains: a prospective controlled trial. *Am J Sports Med* 2004; 32: 1385–93
67. Wedderkopp N, Kalthoft M, Lundgaard B, Rosendahl M, Froberg K: Prevention of injuries in young female players in European team handball. A prospective intervention study. *Scand J Med Sci Sports* 1999; 9: 41–47
68. Wedderkopp N, Kalthoft M, Lundgaard B, Rosendahl M, Froberg K: Comparison of two intervention programmes in young female players in European handball-with and without ankle disc. *Scand J Med Sci Sports* 2003; 13: 371–5
69. Yoo JH, Lim BO, Ha M et al.: A meta-analysis of the effect of neuromuscular training on the prevention of the anterior cruciate ligament injury in female athletes. *Knee surgery, sports traumatology, arthroscopy: official journal of the ESSKA*. 2010; 18: 824–30
70. Zazulak BT, Hewett TE, Reeves NP, Goldberg B, Cholewicki J: The effects of core proprioception on knee injury: a prospective biomechanical epidemiological study. *Am J Sports Med*. 2007; 35: 368–373

Vollständige Literatur zu Harald Hempfling et al.: Talusantenläsionen – OUP 12-2016

Literatur

- Abdel-Wanis M, Tsuchiya H, Minato H, Morinaga T, Yamamoto N, Tomita K: Bilateral symmetrical cysts in the upper tibiae in a skeletally mature patient: Might they be simple bone cysts? *J Orthop Sci* 2001; 6: 59–60
- Alanen V, Taimela S, Kinnunen J, Koskinen SK, Karaharju E: Incidence and clinical significance of bone bruises after supination injury of the ankle. A double-blind, prospective study. *J Bone Joint Surg Br* 1998; 80: 513–515
- Anderson I, Crichton K, Grattan-Smith T, Cooper R, Brazier D: Osteochondral fractures of the dome of the talus. *J Bone Joint Surg Am* 1989; 71: 1143–1152
- Andreasi A: Le lesioni condrali ed osteochondrali della troclea astragalica associate alle lesioni capsule-legamentose della tibio-tarsica. *Chir Organi Mov* 1990; 75: 41–51
- Ashhurst A, Broome R: Classification and mechanism of fractures of the leg bones involving the ankle. *Arch Surg* 1922; 4: 51–129
- Berndt Al, Harty M: Transchondral fractures (osteochondritis dissecans) of the talus. *J Bone Joint Surg* 1959; 41A: 988.
- Bohndorf K: Imaging of acute injuries of the articular surface (chondral, osteochondral and subchondral fractures). *Skeletal Radiology* 1999; 28: 545–560
- Bohndorf K, Imhof H, Shibany N: Bildgebende Diagnostik akuter und chronischer osteochondraler Läsionen am Talus. *Orthopädie* 2001; 30: 12–19
- Bohndorf K, Imhof H, Fischer W: Radiologische Diagnostik der Knochen und Gelenke. Stuttgart: Thieme, 2006: 14–16
- Breitenseher M: Der MR-Trainer Untere Extremität. Stuttgart: Thieme, 2013
- Brill R, Wohlgemuth W, Hempfling H, Bohndorf K, Becker U, Welsch U, Kamp A et al.: Dynamic impact force and association with structural damage to the knee joint: an ex vivo study. *Ann Anat* 2014; 196: 456–63
- Brinckmann P, Probin W, Leivseth G: Orthopädische Biomechanik. Stuttgart: Thieme, 2000: 44–60
- Brown K, Morrison W, Schweitzer M, Parellada J, Nothnagel H: MRI findings associated with distal tibiofibular syndesmosis injury. *AJR Am J Roentgenol* 2004; 182: 131–136
- Bruns J: Osteochondrosis dissecans. *Orthopäde* 1997; 26: 573–584
- Canale S, Belding R: Osteochondral lesions of the talus. *J Bone Joint Surg Am* 1980; 62: 97
- Chiodo C, Herbst S: Necrosis of the talus. *J Foot & Ankle Clin* 2004; 9: 745–755
- Clanton T, De Lee J: Osteochondritis dissecans: history, pathophysiology and current treatment concepts. *Clin Orthop* 1982; 167: 50–64
- Crane A, Scarano J: Synovial cysts (ganglia) of the bone: Report of two cases. *J Bone Joint Surg Am* 1967; 49: 355–361
- Crawford R, Sabokbar A, Wulke A, Murray D, Athanasou N: Expansion from an osteoarthritic cyst associated with wear debris. *J Bone Joint Surg Br* 1998; 80: 990–993
- Dienst M, Blauth M: Bone bruise of the calcaneus. A case report. *Clin Orthop Relat Res* 2000; 378: 202–205
- Dipaola J, Nelson D, Colville M: Characterizing osteochondral lesions by magnetic resonance imaging. *Arthroscopy* 1991; 7: 101–104
- Draijer F, Havemann D, Bielstein D: Verletzungsanalyse kindlicher Talusfrakturen. *Unfallchirurg* 1995; 98: 130–132
- Elias I, Jung W, Raikin S, Schweitzer M, Carrino J, Morrison W: Osteochondral lesions of the talus: change in MRI findings over time in talar lesions without operative intervention and implications for staging systems. *Foot Ankle Int* 2006; 27: 157–166
- Engel A, Hajek P, Kramer J, Hamilton A et al.: Magnetic resonance knee arthrography, enhanced contrast by gadolinium complex in the rabbits and in humans. *Acta Orthop Scand* 1990; 240: 1–57
- Etterlin P, Ytrehus B, Lundheim N, Heldmer E, Österberg J, Ekman S: Effects of free-range and confined housing on joint health in a herd of fattening pigs. *BMC Veterinary Research* 2014; 10: 208
- Ferkel R: Articular surface defects, loose bodies and osteophytes. In: Ferkel R: *Arthroscopic Surgery: The Foot and Ankle*. Raven: Lippincott Williams and Wilkins, 1996: 145–170
- Fischer W: MR-Atlas.com, Lehrbuch und Fallsammlung zur MRT des Bewegungsapparates, Zusmarshausen: mr-Verlag, 2014: 40
- Flick A, Gould N: Osteochondrosis of the talus (transchondral fractures of the talus): review of the literature and new surgical approach for medial dome lesions. *Foot Ankle Int* 1985; 5: 165–185
- Frost A, Roach R: Osteochondral injuries of the foot and ankle. *Sports Med Athrosc Rev* 2009; 17: 87–93
- Fründ H: Diskus- und Meniskuserkrankungen verschiedener Gelenke. *Zentralbl Chir* 1926; 53: 2987
- Furgeson A: Pathological changes in degenerative arthritis of the hip and treatment by rotational osteotomy. *J Bone Joint Surg Am* 1964; 46: 1337–1352
- Golano P, Vega J, De Leeuw P: Anatomy of ankle ligaments: a pictorial essay. *Knee Surg Sports Traumatol Arthrosc* 2010; 18: 557–569
- Griffith J, Lau D, Yeung D, Wong M: High-resolution MR imaging of alar osteochondral lesions with new classification. *Skeletal Radiol* 2012; 41: 387–399
- Guhl J: Arthroscopic treatment of Osteochondritis dissecans. *Clin Orthop* 1982; 167: 65–74
- Haliburton R, Sullivan C, Kelly P, Peterson L: The extraosseous and intraosseous blood supply of the talus. *J Bone Joint Surg* 1958; 40A: 1115–1120
- Harmon K: The ankle examination. *Prim Care* 2004; 31: 1025–1037
- Hembree WC, Wittstein JR, Vinson EN, Queen RM, Larose CR, Singh K, Easley ME: Magnetic resonance imaging features of osteochondral lesions of the talus. *Foot Ankle International* 2012; 33: 591–597
- Hempfling H: Klassifikation des Knorpelschadens – traumatisch versus nichttraumatisch. *Orthopädische Praxis* 2004; 40: 526–541
- Hempfling H, Weise K: Begutachtung osteochondraler Schäden am Sprunggelenk. *Trauma und Berufskrankheit* 2013; 15: 68–76
- Hepple S, Winson I, Glew D: Osteochondral lesions of the talus: a revised classification. *Foot Ankle Int* 1999; 20: 789–93
- Hermans J, Beumer A, Hop W: Tibiofibular syndesmosis in acute ankle fractures: additional value of an oblique MR image plane. *Skeletal Radiol* 2012; 41: 193–202
- Howald H: Zur Kenntnis der Osteochondrosis dissecans (Osteochondritis dissecans). *Archiv für orthopädische und Unfall-Chirurgie* 1942; 41: 730–788
- Imhoff A, König U: Arthroskopie – qualifizierte Stadieneinteilung der osteochondralen Läsion am Knie. *Arthroskopie* 2003; 16: 23–28
- Imhoff A, Minotti O, Schreiber A: 15-Jahres-Resultate nach konservativer und operativer Behandlung der Osteochondrosis dissecans am Knie. *Arthroskopie* 1992; 5: 10–18

45. Ittner G, Jaskulka R, Fasol P: Zur Behandlung der flake fracture des Talus. *Z Orthop Ihre Grenzgeb* 1989; 127: 183–186
46. Jakob R, Gaultier E: Komplexes Knie-trauma – Knorpelverletzungen. *Suisse Surgery* 1998; 4: 296–310
47. Johnson L, Uitvlugt G, Austin M, Detrisac D, Johnson C: Osteochondritis dissecans of the knee: arthroscopic compression screw fixation. *Arthroscopy* 1990; 6: 179–189
48. Kambolis C, Bullogh P, Jaffe H: Ganglionic cystic defects of the bone. *J Bone Joint Surg Am* 1973; 55: 496–505
49. Kapandji I: The physiology of the joints. Edinburgh: Churchill Livingstone, 1987: 164
50. Kappis M: Weitere Beiträge zur traumatisch-mechanischen Entstehung der „spontanen“ Knorpelablösungen, sogenannte Osteochondritis dissecans. *Dtsch Z Chir* 1922; 171: 13
51. Kehr H, Hierholzer G: Diagnostik und Therapie von Knorpelverletzungen des Kniegelenks. *Unfallheilkunde* 1977; 80: 95–99
52. König F: About free body in the joints. *Zeitschr Chir* 1888; 27: 90–109
53. Konradsen L, Voigt M, Højsgaard C: Ankle inversion injuries. The role of the dynamic defense mechanism. *Am J Sports Med* 1997; 25: 54–58
54. Kramer J, Stiglbauer R, Engel A, Prayer L, Imhof H: MR contrast arthrography (MRA) in osteochondrosis dissecans. *J Comput Assist Tomogr* 1992; 16: 254–260
55. Labovitz J, Schweitzer M: Occult osseous injuries after ankle sprains: incidence, location, pattern, and age. *Foot Ankle Int* 1998; 19: 661–66
56. Landells J: The bone cysts of osteoarthritis. *J Bone Joint Surg Br* 1953; 35: 643–649
57. Langner I, Frank M, Kuehn JP, Hinze P, Ekkernkamp A, Hosten N, Langner S: Acute inversion injury of the ankle without radiological abnormalities: assessment with high-field MR imaging and correlation of findings with clinical outcome. *Skeletal Radiol* 2011; 40: 423–43
58. Laor T, Zbolniewicz AM, Eismann EA, Wall EJ: Juvenile osteochondritis dissecans: is it a growth disturbance of the secondary physis of the epiphysis? *AJR* 2012; 199: 1121–1128
59. Lauge-Hansen N: Fractures of the ankle. *Arch Surg* 1946; 56: 259–317
60. Longo U, Loppini M, Romeo G, Van Dijk C, Maffulli N, Denaro V: Bone bruise associated with acute ankle ligament injury: do they need treatment? *Knee Surg Sports Traumatol Arthrosc* 2013; 21: 1261–1268
61. Loomer R, Fisher C, Lloyd-Smith R, Sisler J, Cooney T: Osteochondral lesions of the talus. *Am J Sports Med* 1993; 21: 13–19
62. Maffulli N, Longo U, Gougoulis N, Loppini M, Denaro V: Long-term health outcomes of youth sports injuries. *Br J Sports Med* 2010; 44: 21–25
63. Martinek V, Öttl G, Imhoff A: Chondrale und osteochondrale Läsionen am oberen Sprunggelenk. *Unfallchirurg* 1998; 101: 468–475
64. McCoy AM, Toth F, Dolvik NI, Ekman S, Ellermann J, Olstad K, Ytrehus B et al.: Articular Osteochondrosis: A Comparison of Naturally – Occurring Human and Animal Disease. *Osteoarthritis Cartilage* 2013; 21(11): 1638–47
65. McLaren D, Buckwalter K, Vahey T: The prevalence and significance of cyst-like changes at the cruciate ligament attachments in the knee. *Skeletal Radiol* 1992; 21: 365–369
66. Mink J, Deutsch A: Occult cartilage and bone injuries of the knee: detection, classification, and assessment with MR imaging. *Radiology* 1989; 170: 823–829
67. Mintz D, Tashjian G, Connell D, Deland J, O'Malley M, Potter H: Osteochondral lesions of the talus: a new magnetic resonance grading system with arthroscopic correlation. *Arthroscopy* 2003; 19: 353–9
68. Monro A: *Microgeologie*. Berlin: Billroth, 1856: 236
69. Morscher E: Traumatische Knorpelläsionen am Kniegelenk. *Chirurgie* 1979; 50: 599–604
70. Mulfinger G, Trueta J: The Blood Supply of the Talus. *J Bone Joint Surg* 1970; 52B: 160–167
71. Nelson D, Dipaola J, Colville M, Schmidgal J: Osteochondritis dissecans of the talus and knee: prospective comparison of MR and arthroscopic classifications. *J Comput Assist Tomogr* 1990; 14: 804–808
72. Nishimura G, Yamato M, Togawa M: Trabecular trauma of the talus and medial malleolus concurrent with lateral collateral ligamentous injuries of the ankle: evaluation with MR imaging. *Skeletal Radiol* 1996; 25: 49–54
73. O'Loughlin P, Heyworth B, Kennedy J: Current concepts in the diagnosis and treatment of osteochondral lesions of the ankle. *Am J Sports Med* 2010; 38: 392–404
74. Outerbridge R: The etiology of chondromalacia patellae. *J Bone Joint Surg* 1961; 43-B: 752–757
75. Paget J: On the production of some of the loose bodies in joints. *Saint Bartholomew's Hospital Reports* 1870
76. Pare A, Malgaigne J: Complete works of Ambroise Pare. Paris: J.-B. Baillie're 1840
77. Passl R, Spängler H, Wruhs O: Zur Problematik der sogenannten „Flake fractures“ der medialen Talusrollenkante. *Hefte Unfallheilkd* 1979; 134: 99
78. Peterson L, Goldie I, Lindell D: The arterial supply of the talus. *J Acta orthop scand* 1974; 45: 260–270
79. Pinar H, Akseki D, Kovanlikaya I, Arac S, Bozkurt M: Bone bruises detected by magnetic resonance imaging following lateral ankle sprains. *Knee Surg Sports Traumatol Arthrosc* 1997; 5(2): 113–117
80. Pouders C, De Maeseneer M, Van Roy P, Gielen J, Goossens A, Shahabpour M: Prevalence and MRI–Anatomic Correlation of Bone Cysts in Osteoarthritic Knees. *AJR Am J Roentgenol* 2008; 190: 17–21
81. Pritsch M, Horoshovski H, Farine I: Arthroscopic treatment of osteochondral lesions of the talus. *J Bone Joint Surg* 1986; 68: 862–865
82. Raikin S, Elias I, Zoga A, Morrison W, Besser M, Schweitzer M: Osteochondral lesions of the talus: Localization and morphologic data from 424 patients using a novel anatomical grid scheme. *Foot Ankle International* 2007; 28: 154–161
83. Raith W: Durchblutungsverhältnisse der medialen Taluskante – eine anatomische Studie. Promotion Uni Ulm, 2005
84. Ramsey PL, Hamilton W: Changes in tibiotalar area of contact caused by lateral talar shift. *J Bone Joint Surg Am* 1976; 58: 356–357
85. Rendu A: Fracture intra-articulaire parcellaire de la poulve astragaliene. *Lyon Med* 1932; 150: 220–222
86. Rhaney K, Lamb D: Cysts of osteoarthritis of the hip: A Radiological and Pathological Study. *J Bone Joint Surg Br* 1955; 37: 663–675
87. Ribbing S: Studies on hereditary, multiple epiphyseal disorder. *Acta Radiol* 1937; 34: 1–107
88. Rogers L: *Radiology of skeletal trauma*. Edinburgh: Churchill Livingstone, 1982
89. Sabokbar A, Crawford R, Murray DA, Athanasou NA: Macrophage-osteoclast differentiation and bone resorption in osteoarthrotic subchondral acetabular cysts. *Acta Orthop Scand* 2002; 71: 255–261
90. Sanal H, Chen L, Haghghi P, Trudell D, Resnick D: Carpal bone cysts: MRI, gross pathology, and histology correlation in cadavers. *Diagn Interv Radiol* 2014; 20: 503–506
91. Schajowicz F, Clavel Sainz M, Slullitel J: Juxta-articular bone cysts (intra-osseous ganglia): a clinicopathological study of eighty-eight cases. *J Bone Joint Surg Br* 1979; 61: 107–116
92. Schmalzried T, Akizuki K, Fedenko A, Mirra J: The role of access of joint fluid to bone in periarticular osteolysis. *J Bone Joint Surg Am* 1997; 79: 44–52
93. Schnittker E, May E, Thaiss S: Flake fractures der Talusrolle als Sportverletzung. *Dtsch Z Sportmed* 1984; 35: 346–356
94. Schulitz K: Die Bedeutung der Vaskularisation für die Talusnekrose nach Frakturen. *Z Orthop* 1975; 113: 699–701

95. Shea K, Javobs J, Carey J, Anderson A, Oxford X J: Osteochondritis dissecans knee histology studies have variable findings and theories of etiology. *Clin Orthop Relat Res* 2013; 471: 1127–1136
96. Shepherd D, Seedhom B: Thickness of human articular cartilage in joints of the lower limb. *Ann Rheum Dis* 1999; 58: 27–30
97. Sijbrandij E, Van Gils A, Louwerens J, De Lange E: Posttraumatic subchondral bone contusions and fractures of the talotibial joint: occurrence of „kissing“ lesions. *AJR Am J Roentgenol* 2000; 175: 1707–1710
98. Spahn G, Wittig R: Spannungs- und Bruchverhalten des gesunden Gelenkknorpels unter axialer Belastung: Eine biomechanische Untersuchung. *Zentralbibliothek Chirurgie* 2003; 128: 78–82
99. Steinhagen J, Niggmeyer O, Bruns J: Ätiologie und Pathogenese der Osteochondrosis dissecans tali. *Orthopädie* 2001; 30: 20–27
100. Stone J: Osteochondral lesions of the talar dome. *J Am Acad Orthop Surg* 1996; 4: 63–73
101. Taga I, Shino K, Inoue M, Nakata K, Maeda A: Articular cartilage lesions in ankles with lateral ligament injury. An arthroscopic study. *Am J Sports Med* 1993; 21: 120–126
102. Takao M, Ochi M, Uchio Y, Naito K, Kono T, Oae K: Osteochondral lesions of the talar dome associated with trauma. *Arthroscopy* 2003; 19: 1061–1067
103. Taranow W, Bisignani G, Towers J, Conti S: Retrograde drilling of osteochondral lesions of the medial talar dome. *Foot & Ankle International* 1999; 20: 474–480
104. Tomatsu T, Imai N, Takeuchi N, Takahashi K, Kimura N: Experimental Produced Fractures of Articular Cartilage and Bone and Joint Surgery 1992; 74-B: 457–462
105. Toth F, Nissi MJ, Ellermann JM, Wang L, Shea KG, Polousky J, Carlson CS: Novel Application of Magnetic Resonance Imaging Demonstrates Characteristic Differences in Vasculature at Predilection Sites of Osteochondritis Dissecans. *Am J Sports Med* 2015; 43(10): 2522–2527
106. Van Dijk C, Lim L, Bossuyt P, Marti R: Physical examination is sufficient for the diagnosis of sprained ankles. *J Bone Joint Surg Br* 1996; 78: 958–962
107. Van Dijk CN, Bossuyt PM, Marti RK: Medial ankle pain after lateral ligament rupture. *J Bone Joint Surg Br* 1996; 78: 562–567
108. Van Dijk CN, Molenaar AH, Cohen RH, Tol JL, Bossuyt PM, Marti RK: Value of arthrography after supination trauma of the ankle. *Skeletal Radiol* 1998; 27: 256–261
109. Van Dijk CN, Reilingh M, Zengerink M, Van Bergen C: Osteochondral defects in the ankle: why painful? *Knee Surg Sports Traumatol Arthrosc* 2010; 18: 570–580
110. Vanhoenacker F, Van de Perre S, De Vuyst D, De Schepper A: Proceedings of the meeting of the KBVR-SRBR Osteo-Articular section, Brussels, June 21, 2003; cystic lesions around the knee. *JBR-BTR*, 2003; 86: 302–304
111. Verhagen R, Struijs P, Bossuyt P, Van Dijk CN: Systematic review of treatment strategies for osteochondral defects of the talar dome. *Foot Ankle Clin* 2003; 8: 223–242
112. Wan L, de Asla RJ, Rubash HE, Li G: Determination of in-vivo articular cartilage contact areas of human talocrural joint under weightbearing conditions. *Osteoarthritis Cartilage* 2006; 14: 1294–1301
113. Weber B: Die Verletzungen des oberen Sprunggelenkes. Aktuelle Probleme in der Chirurgie. Bd. 3. Bern, Stuttgart, Toronto: Huber, 1966
114. Wildenauer E: Die Blutversorgung des Talus. *Zeitschrift für Anatomie und Entwicklungsgeschichte* 1950; 115: 32–36
115. Woods C: Subchondral bone cysts. *J Bone Joint Surg Br* 1961; 43: 758–766
116. Yamine K, Fathi Y: Ankle „sprains“ during sport activities with normal radiographs: incidence of associated bone and tendon injuries on MRI findings and its clinical impact. *Foot (Edinb)* 2011; 21: 176–178
117. Yttrhus B, Ekman S, Carlson C, Teige J, Reinholdt F: Focal changes in blood supply during normal epiphyseal growth are central in the pathogenesis of osteochondrosis in pigs. *Bone* 2004; 35(6): 1294–1306
118. Yttrhus B, Andreas Haga H, Mellum C, Mathisen L, Carlson CS, Ekman S, Teige J et al.: Experimental ischemia of porcine growth cartilage produces lesions of osteochondrosis. *J Orthop Res* 2004; 22(6): 1201–1209
119. Yttrhus B, Grindflek E, Teige J, Stubjoen E, Grondalen T, Carlson CS: The effect of parentage on the prevalence, severity and location of lesions of osteochondrosis in swine. *J Vet Med A Physiol Pathol Clin Med* 2004; 51: 188–195
120. Yttrhus B, Carlson CS, Ekman S: Etiology and pathogenesis of osteochondrosis. *Vet Pathol* 2007; 44: 429–448
121. Zanetti M, De Simoni C, Wetz HH, Zollinger H, Hodler J: Magnetic resonance imaging of injuries to the ankle joint: can it predict clinical outcome? *Skeletal Radiol* 1997; 26: 82–88
122. Zilch H, Friedebold G: Diagnostik und Therapie chondraler und osteochondraler Frakturen im Bereich des oberen Sprunggelenkes. *Unfallheilkunde* 1983; 86: 153–160