

8 Literaturverzeichnis

- Anderson M.A. und Aron D.N.** (1998): Repairing humeral and femoral fractures with external skeletal fixation; *Vet Med*; **5**: 455-461.
- Anderson M.A., Palmer R.H. und Aron D.N.** (1997): Improving pin selection and insertion technique for external skeletal fixation; *Comp Cont Edu Small Anim*; **19** (4): 485-499.
- Aron D.N.** (1990): Oblique fractures: special considerations for management; *Comp Cont Edu Small Anim*; **12** (12): 1743-1755.
- Aron D.N., Palmer R.H. und Johnson A.L.** (1995): Biologic strategies and a balanced concept for repair of highly comminuted long bone fractures; *Comp Cont Edu Small Anim*; **17** (1): 35-49.
- Auer J.** (2004): Veterinary Specialty News: The VetFix System (Clamp-Rod Internal Fixator). *AO-Development News*; **1**: 2-4.
- Augat P., Merk J., Ignatius A., Margevicius K., Bauer G., Rosenbaum D. und Claes L.** (1996): Early, full weightbearing with flexible fixation delays fracture healing; *Clin Orthop Relat Res*; **1** (328): 194-202.
- Augat P., Margevicius K., Simon J. und Claes L.** (1998): Local tissue properties in bone healing: influence of size and stability of the osteotomy gap; *J Orthop Res*; **16** (4): 475-482.
- Augat P., Merk J., Wolf S. und Claes L.** (2001): Mechanical stimulation by external application of cyclic tensile strains does not effectively enhance bone healing; *J Orthop Trauma*; **15** (1): 54-60.
- Bahn U.** (1995): Komplikationen nach Osteosynthese: Eine retrospektive und klinische Studie bei Hund und Katze in den Jahren 1989-1992 unter besonderer Berücksichtigung pathogenetisch bedeutsamer Faktoren; Diss. med. vet., Hannover.
- Bailon-Plaza A. und van der Meulen M.C.** (2003): Beneficial effects of moderate, early loading and adverse effects of delayed or excessive loading on bone healing; *J Biomech*; **36** (8): 1069-1077.
- Beaupré G.S., Carter D.R., Dueland R.T., Caler W.E. und Spengler D.M.** (1988): A biomechanical assessment of plate fixation, with insufficient bony support; *J Orthop Res*; **6** (5): 721-729.

- Beck A.L. und Pead M.J.** (2003): The use of Ellis pins (negativ profile tip-threaded pins) in external skeletal fixation in dogs and cats; *Vet Comp Orthop Traumatol*; **16** (4): 223-231.
- Bhandari M., Guyatt G.H., Swiontkowski M.F. und Schemitsch E.H.** (2001): Treatment of open fractures of the shaft of the tibia; *J Bone Joint Surg*; **83** (1): 62-68.
- Bhandari M., Tornetta P., Swiontkowski M.F. und Schemitsch E.H.** (2003): Reamed versus non-reamed tibial intramedullary nailing; *Eur J Trauma*; **29** (5): 304-311.
- Boudrieau R.J.** (1991): Principles of screw and plate fixation; *Semin Vet Med Surg (Small Anim)*; **6** (1): 75-89.
- Boudrieau R.J.** (2003): Fractures of the radius and ulna; In: Slatter DH, *Textbook of small animal surgery*. Philadelphia: WB Saunders 2003; 3rd ed.; 1953-1973.
- Boudrieau R.J.** (2003): Fractures of the tibia and fibula; In: Slatter DH: *Textbook of small animal surgery*. Philadelphia: WB Saunders 2003; 3rd ed.; 2144-2160.
- Braden T.D., Eicker S.W., Abdinoor D. und Prieur W.D.** (1995): Characteristics of 1000 femur fractures in the dog and cat; *Vet Comp Orthop Trauma*; **8**: 203-209.
- Brinker W.O., Flo G.L. und Graden T.** (1975): Removal of bone plates in small animals; *Vet Clin North Am*; **11**: 577-581.
- Brinker W.O., Verstraete M.C. und Soutas-Little R.W.** (1985): Stiffness studies on various configurations and types of external fixators; *J Am Anim Hosp Assoc*; **17** (21): 801-808.
- Brown D.C., Conzemius M.G. und Shofer F.** (1997): Epidemiologic evaluation of postoperative wound infections in dogs and cats; *J Am Vet Med Assoc*; **210** (9): 1302.
- Brunnberg L., Forterre F., Kaiser S., Burger M. und Waibl H.** (2003): Unterschenkelfrakturen bei der Katze; *Kleintierpraxis*; **48** (1): 9-24.
- Brunnberg L. und Waibl H.** (2002): Versorgung von Humerusfrakturen bei der Katze; *Kleintierpraxis*; **47**: 517-531.
- Brunnberg L., Horst C., Gagel A., Weiler A. und Raschke M.** (1998): Die No Contact Plate (NCP) Osteosyntheseplatte - Ein neues biologisches Implantatsystem; *Kleintierpraxis*; **43** (8): 579-591.
- Carter D.R., Beaupré G.S., Giori N.J. und Helms, J.A.** (1998): Mechanobiology of skeletal regeneration; *Clin Orthop Relat Res*; **1** (355): 41-55.
- Carter D.R. und Hayes W.C.** (1977): The compressive behavior of bone as a two-phase porous structure; *J Bone Joint Surg Am*; **59** (7): 954-961.

- Chandler J.C. und Beale B.S.** (2002): Feline orthopedics; Clin Tech Small Anim Pract; **17** (4): 190-202.
- Chao E.Y., Inoue N., Elias J.J. und Aro H.** (1998): Enhancement of fracture healing by mechanical and surgical intervention; Clin Orthop Relat Res; **1** (355): 163-178.
- Chehade M.J., Pohl A.P., Pearcy M.J. und Nawana N.** (1997): Clinical implications of stiffness and strength changes in fracture healing; J Bone Joint Surg; **79** (1): 9-12.
- Chen A.L., Joseph T.N., Wolinsky P.R., Tejwani N.C., Kummer F.J., Egol K.A. und Koval K.J.** (2002): Fixation stability of comminuted humeral shaft fractures: locked intramedullary nailing versus plate fixation; J Trauma; **53** (4): 733-737.
- Claes L.E.** (1989): The mechanical and morphological properties of bone beneath internal fixation plates of differing rigidity; J Orthop Res; **7** (2): 170-182.
- Claes L.E., Wilke H.J., Augat P., Rübenacker S. und Margevicius K.J.** (1995): Effect of dynamization on gap healing of diaphyseal fractures under external fixation; Clin Biomech; **10** (5): 227-234.
- Claes L., Heigle C.A., Neidlinger-Wilke C., Kaspar D., Seidl W., Margevicius K. und Augat P.** (1998): Effects of mechanical factors on the fracture healing process; Clin Orthop Relat Res; **1** (355): 132-147.
- Claes L., Eckert-Hübner K. und Augat P.** (2002): The effect of mechanical stability on local vascularization and tissue differentiation in callus healing; J Orthop Res; **20** (5): 1099-1105.
- Claes L., Eckert-Hübner K. und Augat P.** (2003): The fracture gap size influences the local vascularization and tissue differentiation in callus healing; Langenbecks Arch Surg; **388** (5): 316-322.
- Claudi B.F. und Oedekoven G.** (1991): "Biologische" Osteosynthesen; Chirurg; **62** (5): 367-377.
- Claudi B.** (1979): Improvement of the Stability of Pressure-Plate Osteosynthesis (Proceedings); Fortschr Med; **97** (14): 678-680.
- Cordey J., Perren S.M. und Steinemann S.G.** (2000): Stress protection due to plates: myth or reality? A parametric analysis made using the composite beam theory; Injury; **31** (3): 1-13.
- Court-Brown C.M., Will E., Christie J. und McQueen M.M.** (1996): Reamed or unreamed nailing for closed tibial fractures. A prospective study in Tscherne C1 fractures; J Bone Joint Surg; **78** (4): 580-583.

- Cruse P.J. und Foord R.** (1980): The epidemiology of wound infection. A 10-year prospective study of 62,939 wounds; *Surg Clin North Am*; **60** (1): 27-41.
- Dennis J.** (2003): Intramedullary interlocking nails; In: Slatter DH, *Textbook of small animal surgery*. Philadelphia: WB Saunders 2003; 3nd ed.: 1487-1514.
- DiGioia A.M., Cheal E.J. und Hayes W.C.** (1986): Three-dimensional strain fields in a uniform osteotomy Gap; *J Biomech Eng*; **108** (3): 273-279.
- Drosos G., Karnezis I.A., Bishay M. und Miles A.W.** (2001): Initial rotational stability of distal tibial fractures nailed without proximal locking: the importance of fracture type and degree of cortical contact; *Injury*; **32** (2): 137-143.
- Dueland R.T., Johnson K.A., Roe S.C., Engen M.H. und Lesser A.S.** (1999): Interlocking nail treatment of diaphyseal long bone fractures in dogs; *J Am Vet Med Assoc*; **214** (1): 59-65.
- Dueland T.** (2003): Interlocking nail and intramedullary pin fixation; In: Slatter DH: *Textbook of small animal surgery*. Philadelphia: WB Saunders 2003; 3nd ed.: 927-986.
- Duhautois B.** (2003): Use of veterinary interlocking nails for diaphyseal fractures in dogs and cats: 121 Cases; *Vet Surg*; **32**: 8-20.
- Durall I., Diaz-Bertrana M.C., Puchol J.L. und Franch J.** (2003): Radiographic findings related to interlocking nailing: windshield-wiper effect, and locking screw failure; *Vet Comp Orthop Traumatol*; **16**: 217-222.
- Durall I., Falcon C., Diaz-Bertrana M.C. und Franch J.** (2004): Effects of static fixation and dynamization after interlocking femoral nailing locked with an external fixator: an experimental study in dogs; *Vet Surg*; **33** (4): 323-332.
- Egger E.L.** (1992): Instrumentation for external fixation; *Vet Clin North Am Small Anim Pract*; **22** (1): 19-43.
- Einhorn T.A.** (1998): The cell and molecular biology of fracture healing; *Clin Orthop Relat Res*; **1** (355): 7-21.
- ElMaraghy A.W., ElMaraghy M.W., Nousiainen M., Richards R.R. und Schemitsch E.H.** (2001): Influence of the number of cortices on the stiffness of plate fixation of diaphyseal fractures; *J Orthop Trauma*; **15** (3): 186-191.
- Euler B.** (1979): Unterarmfrakturen bei der Katze, Behandlung und Ergebnisse in den Jahren 1970-1978; Diss. med. vet., München.
- Eveleigh R.J.** (1995): A review of biomechanical studies of intramedullary nails; *Med Eng Phys*; **17** (5): 323-331.

- Fedarko N.S., Bianco P., Vetter U. und Robey P.G.** (1990): Human bone cell enzyme expression and cellular heterogeneity: correlation of alkaline phosphatase enzyme activity with cell cycle; *J Cell Physiol*; **144** (1): 115-121.
- Field J.R., Hearn T.C. und Caldwell B.** (1997): Bone plate fixation: an evaluation of interface contact area and force of the dynamic compression plate (dcp) and the limited contact-dynamic compression plate (lc-dcp) applied to cadaveric bone; *J Orthop Trauma*; **11** (5): 368-375.
- Forterre F., Behrend A., Burger M., Waibl H. und Brunnberg L.** (2005) : Einsatz einer neuen Kondylenplatte zur Versorgung von suprakondylären Femurfrakturen bei der Katze; *Kleintierpraxis* **50** (5): 299-304.
- Foux A., Yeadon A.J. und Uhthoff H.K.** (1997): Improved fracture healing with less rigid plates. A biomechanical study in dogs; *Clin Orthop Relat Res*; **1** (339): 232-245.
- Fuchs R.** (1978): Femurschaftfrakturen bei der Katze, Behandlung und Ergebnisse in den Jahren 1970-1977; *Diss. med. vet.*, München.
- Gaston P., Will E., Elton R.A., McQueen M.M. und Court-Brown C.M.** (1999): Fractures of the tibia. Can their outcome be predicted?; *J Bone Joint Surg*; **81** (1): 71-76.
- Gautier E., Perren S.M. und Cordey J.** (2000): Effect of plate position relative to bending direction on the rigidity of a plate osteosynthesis. A theoretical analysis; *Injury*; **31** (3): 14-20.
- Glennon J.C., Flanders J.A. und Beck K.A.** (1994): The effect of long-term bone plate application for fixation of radial fractures in dogs; *Vet Surg*; **23** (1): 40-47.
- Glowacki J.** (1998): Angiogenesis in fracture repair; *Clin Orthop Relat Res*; **1** (355): 82-89.
- Goodship A.E. und Kenwright J.** (1985): The influence of induced micromovement upon the healing of experimental tibial fractures; *J Bone Joint Surg Br*; **67** (4): 650-659.
- Goodship A.E., Cunningham J.L. und Kenwright J.** (1998): Strain rate and timing of stimulation in mechanical modulation of fracture healing; *Clin Orthop Relat Res*; **1** (355): 105-115.
- Gorse M.J.** (1998): Using external skeletal fixation for fractures of the radius and ulna and tibia; *Vet Med*; 463-467.
- Graf G.** (2003): Untersuchung zur Anwendbarkeit der Paraossären-Klammer-Cerclagen-Stabilisierung bei Hunden und Katzen; *Diss. med. vet.* Wien.

- Haas B. und Unger M.** (2001): Die gedeckte Marknagelung mit minimaler zusätzlicher Stabilisierung zur Behandlung diaphysärer Frakturen bei Hund und Katze; Kleintierpraxis; **46**: 561-569.
- Haas B., Reichler M. und Montavon P.M.** (2003): Use of the tubular external fixator in the treatment of distal radial and ulnar fractures in small dogs and cats; Vet Comp Orthop Trauma; **16**: 132-137.
- Hach V.** (2000): Initial experience with a newly developed medullary stabilisation nail (Trilam nail); Vet Comp Orthop Trauma; **13**: 109-114.
- Hannouche D., Petite H. und Sedel L.** (2001): Current trends in the enhancement of fracture healing; J Bone Joint Surg; **83** (2): 157-164.
- Hara Y., Nakamura T., Fukuda H., Harada Y., Nezu Y. und Tagawa M.** (2003): Changes of biomechanical characteristics of the bone in experimental tibial osteotomy model in the dog; J Vet Med Sci; **65** (1): 103-107.
- Harari J.** (2002): Treatments for feline long bone fractures; Vet Clin North Am Small Anim Pract; **32** (4): 927-947.
- Hente R., Cheal E.J. und Perren S.M.** (1992): Die Dehnungstheorie als Erklärungsgrundlage des Erfolges der biologischen Osteosynthese; Hefte zu Der Unfallchirurg; **232**: 445-451.
- Horstman C.L., Beale B.S., Conzemius M.G. und Evans R.** (2004): Biological osteosynthesis versus traditional anatomic reconstruction of 20 long-bone fractures using an interlocking nail: 1994-2001; Vet Surg; **33** (3): 232-237.
- Howard P.E.** (1991): Principles of intramedullary pin and wire fixation; Semin Vet Med Surg (Small Anim); **6** (1): 52-67.
- Hulse D., Hyman W., Nori M. und Slater M.** (1997): Reduction in plate strain by addition of an intramedullary pin; Vet Surg; **26** (6): 451-459.
- Hulse D. und Hyman B.** (2003): Fracture biology and biomechanics; In: Slatter DH. Textbook of small animal surgery. Philadelphia: WB Saunders 2003; 3nd ed.: 1785-1792.
- Ibenthal S. und Brüse S.** (1993): Versorgung von Schaftfrakturen bei der Katze durch Plattenosteosynthese; Kleintierpraxis; **38** (5) 281-296.
- Im G.I. und Shin S.R.** (2002): Treatment of femoral shaft fractures with a titanium intramedullary nail; Clin Orthop Relat Res; **1** (401): 223-229.

- Johnson A.L., Seitz S.E., Smith C.W., Johnson J.M. und Schaeffer D.J.** (1996): Closed reduction and type-II external fixation of comminuted fractures of the radius and tibia in dogs: 23 cases (1990-1994); *J Am Vet Med Assoc*; **209** (8): 1445-1448.
- Johnson A.L., Egger E.L., Eurell J.A.C. und Losonsky J.M.** (1998): Biomechanics and biology of fracture healing with external skeletal fixation; *Comp Cont Edu Small Anim*; **20** (4): 487-502.
- Johnson A.L., Smith C.W. und Schaeffer D.J.** (1998): Fragment reconstruction and bone plate fixation versus bridging plate fixation for treating highly comminuted femoral fractures in dogs: 35 cases (1987-1997); *J Am Vet Med Assoc*; **213** (8): 1157-1161.
- Johnson K.A.** (2003): Interlocking nails; In: Slatter DH, *Textbook of small animal surgery*. Philadelphia, WB Saunders 2003; 3rd ed.: 1807-1811.
- Kähler, B.** (2002): Karpalgelenksarthrodese beim Hund. Eine experimentelle und klinisch prospektive Studie; Diss. med. vet., Berlin.
- Karnezis I.A.** (2000): Biomechanical considerations in 'biological' femoral osteosynthesis: an experimental study of the 'bridging' and 'wave' plating techniques; *Arch Orthop Trauma Surg*; **120** (5-6): 272-275.
- Keating J.F., O'Brian P.J., Blachut P.A., Meek R.N. und Broekhuyse H.M.** (1997): Locking intramedullary nailing with and without reaming for open fractures of the tibia shaft; *J Bone Joint Surg Am*; **79** (3): 334-341.
- Kirby B.M. und Wilson J.W.** (1991): Effect of circumferential bands on cortical vascularity and viability; *J Orthop Res*; **9** (2): 174-182.
- Klein P., Schell H., Streitparth F., Heller M., Kassi J-P., Kandziora F., Bragulla H., Haas N.P. und Duda G.N.** (2003): The initial phase of fracture healing is specifically sensitive to mechanical conditions; *J Orthop Res*; **21** (4): 662-669.
- Krettek C.** (2001): Prinzipien der intramedullären Knochenbruchstabilisierung. Teil 2: Operationstechnik; *Unfallchirurg*; **104** (8): 749-771.
- Land B.** (1982): Unterschenkelfrakturen bei der Katze, Behandlung und Ergebnisse in den Jahren 1970-1980; Diss. med. vet., München.
- Langley-Hobbs S.J., Carmichael S. und McCartney W.T.** (1996): Use of external skeletal fixators in the repair of femoral fractures in cats; *J Small Anim Pract*; **37**: 95-101.
- Langley-Hobbs S.J., Carmichael S. und McCartney W.T.** (1997): External skeletal fixation for stabilisation of comminuted humeral fractures in cats; *J Small Anim Pract*; **38** (7): 280-285.

- Lanyon L.E., Hampson W.G., Goodship A.E. und Shah J.S.** (1975): Bone deformation recorded in vivo from strain gauges attached to the human tibial shaft; *Acta Orthop Scand*; **46** (2): 256-268.
- Larin A., Eich C.S., Parker R.B. und Stubbs W.P.** (2001): Repair of diaphyseal femoral fractures in cats using interlocking intramedullary nails: 12 cases (1996-2000); *J Am Vet Med Assoc*; **219** (8): 1098-1104.
- Larsson S., Kim W., Caja V.L., Egger E.L., Inoue N. und Chao Y.S.** (2001): Effect of early axial dynamization on tibial bone healing: a study in dogs; *Clin Orthop Relat Res*; **388** (7): 240-251.
- Laverty P.H., Johnson A.L., Toombs J.P. und Schaeffer D.J.** (2002): Simple and multiple fractures of the radius treated with an external fixator; *Vet Comp Orthop Traumatol*; **15**: 97-103.
- Le A.X., Miclau T., Hu D. und Helms J.A.** (2001): Molecular aspects of healing in stabilized and non-stabilized fractures; *J Orthop Res*; **19** (1): 78-84.
- Lee T.C., Staines A. und Taylor D.** (2002): Bone adaptation to load: microdamage as a stimulus for bone remodelling; *J Anat*; **201** (6): 437-448.
- Leunig M. und Hertel R.** (1996): Thermalnecrosis after tibial reaming for intramedullary nail fixation. A report of three cases; *J Bone Joint Surg*; **78** (4): 584-587.
- Leunig M., Hertel R., Siebenrock K.A., Ballmer F.T., Mast J.W. und Ganz R.** (2000): The evolution of indirect reduction techniques for the treatment of fractures; *Clin Orthop Relat Res*; **375** (6): 7-14.
- Lewis D.D., Cross A.R., Carmichael S. und Anderson M.A.** (2001): Recent advances in external skeletal fixation; *J Small Anim Pract*; **42** (3): 103-112.
- Little F.M., Hill C.M., Kageyama T., Conzemius M.G. und Smith G.K.** (2001): Bending properties of stainless steel dynamic compression plates and limited contact dynamic compression plates; *Vet Comp Orthop Traumatol*; **14**: 64-68.
- Lorinson D., Grösslinger K. und Vidoni B.** (2000): Anwendung des Verriegelungsnagels bei Frakturen langer Röhrenknochen von Hund und Katze; *Wien Tierärztl Mschr*; **87**: 278-283.
- Marcellin-Little D.J.** (2003): External skeletal fixation; In: Slatter DH; *Textbook of small animal surgery*, Philadelphia, WB Saunders 2003; 3nd ed.: 1818-1834.

- Markel M.D., Wikenheiser M.A. und Chao E.Y.** (1991): Formation of bone in tibial defects in a canine model. Histomorphometric and biomechanical studies; J Bone Joint Surg Am; **73** (6): 914-925.
- Markel M.D., Sielman E., Rapoff A.J. und Kohles S.S.** (1994): Mechanical properties of long bones in dogs; Am J Vet Res; **55** (8): 1178-1183.
- Marsh D.** (1998): Concepts of fracture union, delayed union, and nonunion; Clin Orthop Relat Res; **1** (355): 22-30.
- Matthiesen D.T.** (1992): Fractures of the humerus; Vet Clin North Am Small Anim Pract; **22** (1): 121-132.
- McCormack R.G., Brien D., Buckley R.E., McKee M.D., Powell J. und Schemitsch E.H.** (2000): Fixation of fractures of the shaft of the humerus by dynamic compression plate or intramedullary nail. A prospective, randomised trial; J Bone Joint Surg Br; **82** (3): 336-339.
- McKibbin B.** (1978): The biology of fracture healing in long bones; J Bone Joint Surg Br; **60-B** (2): 150-157.
- McLaughlin R.** (1999): Internal fixation. Intramedullary pins, cerclage wires, and interlocking nails; Vet Clin North Am Small Anim Pract; **29** (5): 1097-1113.
- McLaughlin R. und Roush J.K.** (1999): Principles of external skeletal fixation; Vet Med; **1**: 53-62.
- McLaughlin R. und Roush J.K.** (1999): Repairing fractures with bone plate and screw fixation; Vet Med; **1**: 64-73.
- Meyer-Lindenberg A., Pruß M., Fehr M. und Brunnberg L.** (1996): Stabilisierung von Frakturen der langen Röhrenknochen bei kleinen Hunden und Katzen; Prakt Tierarzt; **77** (11): 987-994.
- Miclau T., Remiger A., Tepic S., Lindsey R. Und McIff T.** (1995): A Mechanical comparison of the dynamic compression plate, limited contact-dynamic compression plate, and point contact fixator; J Orthop Trauma; **9** (1): 17-22.
- Müller M.E., Allgöwer M., Schneider R. und Willenegger H.** (1984): Manual der Osteosynthese. 3. Auflage, Springer- Verlag, Berlin Heidelberg New York.
- Özsoy S.** (2004): Fixation of femur, humerus and tibia fractures in cats using intramedullary threaded Steinmann pins; Vet Rec; **155** (5): 152-153.
- Palmer R.H. und Aron D.N.** (1990): Ellis pin complications in seven dogs; Vet Surg; **19** (6): 440-147.

- Palmer R.H., Hulse D.A., Hyman W.A. und Palmer D.R.** (1992): Principles of bone healing and biomechanics of external skeletal fixation; *Vet Clin North Am Small Anim Pract*; **22** (1): 45-68.
- Park S.H., O'Connor K., McKellop H. und Sarmiento A.** (1998): The influence of active shear or compressive motion on fracture-healing; *J Bone Joint Surg Am*; **80** (6): 868-878.
- Passavant N.** (2003): Die Anwendung des Fixateur externe bei Hund und Katze – eine retrospektive Studie (1996-1999); Diss. med. vet., Berlin.
- Peirone B., Camuzzini D., Filippi D. und Valazza A.** (2002): Femoral and humeral fracture treatment with an intramedullary Pin/External Fixator tie-in configuration in growing dogs and cats; *Vet Comp Orthop Trauma*; **15**: 85-90.
- Perren S.M.** (1991): The concept of biological plating using the Limited Contact-Dynamic Compression Plate (LC-DCP). Scientific background, design and application; *Injury*; **22** (S11).
- Perren S.M., Cordey J., Rahn B.A. und Gautier E.** (1988): Early temporary porosis of bone induced by internal fixation implants. A reaction to necrosis, not to stress protection?; *Clin Orthop Relat Res*; **232**: 139-147.
- Perren S.M.** (2002): Evolution of the internal fixation of long bone fractures. The scientific basis of biological internal fixation: choosing a new balance between stability and biology; *J Bone Joint Surg Br*; **84** (8): 1093-1110.
- Perren S.M. und Cordey J.** (1980): The concept of interfragmentary strain; In: Uhthoff H.K.: The Concept of Interfragmentary Strain, Berlin, Springer-Verlag: 63-71.
- Phillips I.R.** (1979): A survey of bone fractures in the dog and cat; *J Small Anim Pract*; **20**: 661-667.
- Pohl A.** (2001): Mechanical manipulation of fractures to enhance fracture healing; *J Bone Joint Surg*; **84** (3): 51-56.
- Radasch R.M.** (1999): Biomechanics of bone and fractures; *Vet Clin North Am Small Anim Pract*; **29** (5): 1045-1082.
- Ramotowski W. und Granowski R.** (1991): Zespol. An original method of stable osteosynthesis; *Clin Orthop Relat Res*; **272**: 67-75.
- Reed A.A., Joyner C.J., Isefuku S., Brownlow H.C. und Simpson A.H.** (2003): Vascularity in a new model of atrophic nonunion; *J Bone Joint Surg*; **85** (4): 604-610.

- Reems M.R., Beale B.S. und Hulse D.A.** (2003): Use of a plate-rod construct and principles of biological osteosynthesis for repair of diaphyseal fractures in dogs and cats: 47 cases (1994-2001); J Am Vet Med Assoc; **223** (3): 330-335.
- Renberg W.C., Goring R.L. und Haan de J.J.** (1996): Repair of diaphyseal radius and ulna fractures using a modified Typ I external skeletal fixator and ulnar intramedullary pin; Vet. Comp. Orthop. Trauma.; **9**: 29-35.
- Rhinelander F.W.** (1978): Reply to "acute effects of periosteal stripping and medullary reaming on regional bone blood flow"; Clin Orthop Relat Res; **135**: 308-311.
- Richardson E.F. und Thacher C.W.** (1993): Tibial fractures in cats; Comp Cont Edu Small Anim; **15** (3): 383-394.
- Rochat M.C. und Payne J.T.** (1993): Your options in managing long bone fractures in dogs and cats; Vet Med; **88**: 946-958.
- Roe S.** (2003): Internal Fracture Fixation; In: Slatter DH, Textbook of small animal surgery. Philadelphia, WB Saunders 2003; 3rd ed.: 1798-1806.
- Ross J.T. und Matthiesen D.T.** (1993): The use of multiple pin and methylmethacrylate external skeletal fixation for the treatment of orthopedic injuries in the dog and cat; Vet Comp Orthop Trauma; **6** 115-121.
- Roush J.K.** (1992): Fractures of the tibia. Vet Clin Small Anim, **22**: 161-165.
- Roush J.K.** (1995): Fracture management decisions; Vet Clin North Am Small Anim Pract; **25** (5): 1059-1072.
- Roush J.K. und McLaughlin R.M.** (1998): Fundamentals of fracture management; Vet Med; **12**: 1065-1070.
- Roush J.K. und McLaughlin R.M.** (1999): Using interlocking nail fixation to repair fractures in small animals; Vet Med; **94** (1): 46-52.
- Rubin C.T. und Lanyon L.E.** (1985): Regulation of Bone Mass by Mechanical Strain Magnitude; Calcif Tissue Int; **37** (4): 411-416.
- Rudd R.G. und Whitehair J.G.** (1992): Fractures of the Radius and Ulna; Vet Clin North Am Small Anim Pract; **22** (1): 135.
- Sardinas J.C. und Montavon P.M.** (1997): Use of a medial bone plate for repair of radius and ulna fractures in dogs and cats: A report of 22 cases; Vet Surg; **26** (2): 108-113.
- Schandelmaier P., Krettek C., Rudolf J., Kohl A. und Tscherne H.** (1997): Vorteile des unaufgebohrten Tibianagels im vergleich mit Fixateur externe bei der Behandlung von Grad 3B offenen Tibiaschaftfrakturen; Unfallchirurg; **100** (4): 286-293.

- Schandlmaier P., Partenheimer A., Koenemann B. und Tscherne H.** (2001): Distal femoral fractures and liss stabilization; *Injury*; **32** (S3): 55-59.
- Schebitz H., Brunnberg L., Vollmerhaus B., Waibl H. und Beck B.** (1976): Zur Versorgung der Frakturen am Condylus humeri des Hundes; *Berl. Münch. Tierärztl. Wschr.*; **89**: 389-394.
- Schmidtmann U., Knopp W., Wolff C. und Stürmer K.M.** (1997): Ergebnisse der elastischen Plattenosteosynthese einfacher Femurfrakturen beim Polytrauma; *Unfallchirurg*; **100** (12): 949-956.
- Schmökel H.G., Hurter K. und Schawalder P.** (2003): Percutaneous plating of tibial fractures in two dogs; *Vet Comp Orthop Traumatol*; **16**: 191-195.
- Schutz M. und Haas N.P.** (2001): Liss-Internal Plate Fixator; *Kongressbd Dtsch Ges Chir Kongr*; **118**: 375-376.
- Schwarz P.D.** (1991): Biomechanics of fracture and fracture fixation; *Seminars in Veterinary Medicine and Surgery (Small Animals)*; **6** (1): 3-15.
- Shahar R., Banks-Sills L. und Eliasy R.** (2003): Stress and strain distribution in the intact canine femur: finite element analysis; *Med Eng Phys*; **25** (5): 387-394.
- Shani J. und Shahar R.** (2002): The unilateral external fixator and acrylic connecting bar, combined with I.M. pin, for treatment of tibial fractures; *Vet Comp Orthop Traumatol*; **15**: 104-110.
- Simpson A.H., Gardner T.N., Evans M. und Kenwright J.** (2000): Stiffness, strength and healing assessment in different bone fractures -- a simple mathematical model; *Injury*; **31** (10): 777-781.
- Simpson D.J. und Lewis D.D.** (2003): Fractures of the femur; In: Slatter DH, *Textbook of small animal surgery*. Philadelphia: WB Saunders, 2003; 3rd ed.: 2059-2089.
- Udolph A.** (2004): Allgemeine Traumatologie; In: Souza-Offermatt G., Staubach K.-H., Sterk P. und Udolph A., *Intensivkurs Chirurgie*. Urban & Fischer, 2004; 212.
- Staimer M.S.** (1980): Humerusfrakturen bei der Katze, Behandlung und Ergebnisse in den Jahren 1970-1978; *Diss. med. vet.*, München.
- Störk C.K., Canivet P., Baidak A.A. und Balligand M.H.** (2003): Evaluation of a nontoxic rigid polymer as connecting bar in external skeletal fixators; *Vet Surg*; **32**: 262-268.
- Stürmer K.M.** (1996): Die elastische Plattenosteosynthese, ihre Biomechanik, Indikation und Technik im Vergleich zur rigiden Osteosynthese; *Unfallchirurg*; **99** (11): 816-829.

- Tepic S. und Perren S.M.** (1995): The Biomechanics of the Pc-Fix Internal Fixator; Injury; **26** (2): SB5.
- Tomlinson J.L.** (2003): Fractures of the Humerus; In: Slatter DH, Textbook of small animal surgery. Philadelphia: WB Saunders, 2003; 3rd ed.: 1905-1913.
- Torzilli P.A., Takebe K. und Burstein A.H.** (1981): Structural properties of immature canine bone; J Biomech Eng; **103** (4): 232.
- Trostle S.S. und Markel M.D.** (1996): Fracture biology, biomechanics, and internal fixation; Vet Clin North Am Food Anim Pract; **12** (1): 19-45.
- Uhthoff H.K., Foux A., Yeadon A., McAuley J. und Black R.C.** (1993): Two processes of bone remodellierung in plated intact femora: an experimental study in dogs; J Orthop Res; **11** (1): 78-91.
- Unger M., Montavon P.M. und Heim U.F.A.** (1990): Classification of fractures of long bones in the dog and cat: introduction and clinical application; Vet Comp Orthop Trauma; **3** (5) 41-50.
- Utvåg S.E. und Reikerås O.** (1998): Effects of nail rigidity on fracture healing. Strength and mineralisation in rat femoral bone; Arch Orthop Trauma Surg; **118** (1): 7-13.
- Vnuk D., Pirkić B., Matičić D., Radišić B., Stejskal M., Babić T., Kreszinger M. und Lemo N.** (2004): Feline high-rise syndrome: 119 cases (1998-2001); J Feline Med Surg; **6** (5): 305-312.
- Wade R.H., Moorcroft C.I. und Thomas P.B.** (2001): Fracture stiffness as a guide to the management of tibial fractures; J Bone Joint Surg; **83** (4): 533-535.
- Wallace A.L., Draper E.R., Stracham R.K., McCarthy I.D. und Hughes S.P.F.** (1994): The vascular response to fracture micromovement; Clin Orthop Relat Res; **301**: 281-290.
- Wanivenhaus G.** (2001): Paraossäre Klammer-Cerclagen-Stabilisierung eine biologische Osteosynthesemethode; Wien. Tierärztl. Mschr., **88**: 123-133.
- Weber U. und Montavon P.M.** (1993): Anwendung des "Kleinen Fixateur externe für Hand und Vorderarm" der Arbeitsgemeinschaft für Osteosynthesefragen (AO/ASIF) bei der Katze; Schweiz Arch Tierheilkd; **135** (10): 291-297.
- Wenkel R. und Kaulfuss K.H.** (2001): Frakturen bei Klein- und Heimtieren - Häufigkeiten, Klassifikation und Therapie; Kleintierpraxis; **46** (7): 401-410.
- Wheeler J.L., Cross A.R., Stubbs W.P., Guerin S.R. und Lewis D.D.** (2004): Intramedullary interlocking nail fixation in dogs and cats: biomechanics and instrumentation; Comp Cont Edu Small Anim; **26**: 519-526.

- Wheeler J.L., Cross A.R., Stubbs W.P., Lewis D.D. und Parker R.B.** (2004): Intramedullary interlocking nail fixation in dogs and cats: clinical applications; Comp Cont Edu Small Anim; **26**: 531-543.
- Whitehair J.G. und Vasseur P.B.** (1992): Fractures of the femur; Vet Clin North Am Small Anim Pract; **22** (1): 149-162.
- Whitney W.O. und Mehlhaff C.J.** (1987): High-rise syndrome in cats; J Am Vet Med Assoc; **191**: 1399-1408.
- Willer R.** (2003): Cerclage Wiring; In: Slatter DH, Textbook of small animal surgery. Philadelphia; WB Saunders, 2003; 3nd ed.: 915-1013.
- Wiss D.A.** (2002): What's new in orthopaedic trauma; J Bone Joint Surg Am; **84-A** (11): 2111-2119.
- Wolf S., Janousek A., Pfeil J., Veith W., Haas F., Duda G.N. und Claes L.** (1998): The effects of external mechanical stimulation on the healing of diaphyseal osteotomies fixed by flexible external fixation; Clin Biomech; **13** (4-5): 359-364.
- Zhang X., Bao K. und Dai K.** (2000): Stress-relaxation plates and the remodellierung of callus and cortex under the plate in rabbits; Chin Med J (Engl); **113** (9): 805-809.