
Literaturverzeichnis

1. Aarburg von R, Gruber UF (1978) Prophylaxe postoperativer thromboembolischer Komplikationen bei hüftgelenksnahen Frakturen. *Unfallheilkunde* 81:475
2. Abildgaard U, Odegard OR (1992) Klinische Bedeutung des angeborenen Antithrombin-Mangels. *Die gelben Hefte* 32:57–63
3. Agnelli G, Taliani MR, Verso M (1999) Building effective prophylaxis of deep vein thrombosis in the outpatient setting. *Blood Coagul Fibrinolysis* 10(2): 29–35
4. Agu O, Hamilton G, Baker D (1999) Graduated compression stockings in the prevention of venous thromboembolism. *Br J Surg* 86(8):992–1004
5. Ahmad S, Jeske WP, Walenga JM et al. (1999) Synthetic pentasaccharides do not cause platelet activation by antiheparin-platelet factor 4 antibodies. *J Clin Appl Thromb Haemost* 5(4):259–266
6. Aitken AGE, Godden DJ (1987) Real-time ultrasound diagnosis of deep vein thrombosis. A comparison with venography. *Clin Radiol* 38:309–313
7. Alexander K (1993) *Gefäßkrankheiten*. Urban & Schwarzenberg, München Wien Baltimore, S 56ff
8. Ameri A, Kuppaswamy O, Basu S, Bajaj SP (1992) Expression of tissue factor pathway inhibitor by cultured endothelial cells in response to inflammatory mediators. *Blood* 79(12):3219–3226
9. Andersson LO, Barrowcliffe TW, Holmer E, Johnson EA, Söderstrom G (1979) Molecular weight dependency of the heparin potentiated inhibition of thrombin and activated factor X effect of heparin neutralization in plasma. *Thromb Res* 15:531–541
10. Andersson LO, Barrowcliffe TW, Holmer E, Johnson EA, Sims GEC (1976) Anticoagulant properties of heparin fractionated by affinity chromatography on matrix-bound antithrombin III and by gel filtration. *Thromb Res* 9:575–583
11. Andersson L (1962) Studies on fibrinolysis in urinary tract disease and its treatment with ϵ -aminocaproic acid. *Acta Chir Scand Suppl* 301:1–29
12. Anglen JO, Goss K, Edwards J, Huckfeldt RE (1998) Foot pump prophylaxis for deep venous thrombosis: the rate of effective usage in trauma patients. *Am J Orthop* 27(8):580–582
13. Arora S, Lam DJ, Kennedy C, et al. (1993) Light reflection rheography: A simple noninvasive screening test for deep vein thrombosis. *J Vasc Surg* 18(5):767–772
14. Aster RH (1995) Heparin-induced thrombocytopenia and thrombosis. *New Engl J Med* 332: 1374–1376
15. Barnes W, Hokanson E, Wu K, Hoak JC (1977) Detection of deep vein thrombosis with an automatic electrically calibrated strain gauge plethysmograph. *Surgery* 82:219–223
16. Barthels M, Pobwoda H (1993) *Gerinnungsanalysen*, 4. Aufl. Thieme, Stuttgart, S 15ff
17. Bauer AR, Flynn RR (1988) Computed tomography diagnosis of venous thrombosis of the extremities and pelvis with contrast material. *Surg Gynec Obstet* 167:12–15
18. Bauer DC, Enneking FK, Francis CW, Pellegrini VJ Jr, Marder VJ (1992) Ultrasound surveillance to detect postoperative venous thrombosis (6). *J Am Med Ass* 268:2650–2651
19. Beck EA (1987) Störungen der Blutstillung. *Schw Med Wschr* 117(18):683–687
20. Bell WR (1988) Heparin-associated thrombocytopenia and thrombosis. *J Lab Clin Med* 11:600–605
21. Bell WR, Tomasula PA, Alving BM, Duffy TP (1976) Thrombocytopenia occurring during the administration of heparin: a prospective study in 52 patients. *Ann Intern Med* 85:155–160
22. Berg v d E (1983) Zur Effizienz der physikalischen Thromboseprophylaxe mit Antithrombosestrümpfen. *Phlebol Proktol* 12:43–57
23. Berqvist D (1990) Häufigkeit thrombembolischer Komplikationen bei verschiedenen chirurgischen Eingriffen. Sonderdruck Report V European American Symposium on Venous diseases, Vienna, Austria 1:5
24. Black P, Baker D, Mary F, Snook Curtis P (1986) Experience with External Pneumatic Calf Compression in Neurology and Neurosurgery. *Neurosurgery* 18(4):440–444
25. Blätter W (1980) Wechselwirkungen zwischen Blutrheologie und Blutgerinnung. In: Müller-Wiefel H (Hrsg) *Microzirkulation und Blutgerinnung*. Witzstrock, Baden-Baden, S 21
26. Boisclair MD, Lane DA, Wilde JT, Ireland H, Preston FE, Ofosu FA (1990) A comparative evaluation of assays for markers of activated coagulation and/or fibrinolysis: Thrombin-antithrombin complex, D-Dimer and fibrinogen fibrin fragment E antigen. *Brit J Haematol* 74:471–479
27. Bonnaire F, Brandt T, Raedecke J, Bonk A (1994) Mechanische Sprunggelenksbewegungsschiene zur

- physikalischen Thromboseprophylaxe. Unfallchirurg 97:366–371
28. Bourne RB, Rorabeck CH (1989) Compartment syndromes of the lower leg. Clin Orthop 240(1): 97–104
 29. Breyer HG, Horst B (1989) Thrombembolische Früh- und Spät komplikationen nach Verletzungen der unteren Extremität. Haemostas 9:267–272
 30. Bradley JG, Krugener GH, Jager HJ (1993) The effectiveness of intermittent plantar venous compression in prevention of deep venous thrombosis after total hip arthroplasty. J Arthroplasty 8:57–61
 31. Brown GE, Griffin HZ (1930) Peripheral arterial disease in polycythemia vera. Arch Intern Med 46:705
 32. Browse JL, Negus D (1970) Prevention of post-operative leg vein thrombosis by electrical muscle stimulation: an evaluation with ¹²⁵J-Labelled fibrinogen. Br Med J 3:615–618
 33. Browse NL, Clapham WF, Croft DN, Jones DJ, Thomas L (1971) Diagnosis of established deep vein thrombosis with the J-125-fibrinogen uptake test. Br Med J 4:325–328
 34. Bruhn HD (1990) Diagnostik präthrombotischer und thrombembolischer Zustände. Diagnose Labor 4:135–137
 35. Büller H, en Cate W (1989) Acquired antithrombin III deficiency: laboratory diagnosis, incidence, clinical implications and treatment with antithrombin III concentrate. Am J Med 87:44–48
 36. Bucci MN, Papadopoulos SM, Chen JC et al. (1989) Mechanical prophylaxis of venous thrombosis in patients undergoing craniotomy: a randomized trial. Surg Neurol 32(4):285–288
 37. Bulitta C, Kock HJ, Hanke J, Sievers KW, Schmit-Neuerburg KP (1996) Förderung des venösen Rückstroms im Liegegipsverband durch das AV-Impulssystem. Unfallchirurgie 4(suppl):145–152
 38. Buss H (1994) Pathogenese und Epidemiologie thrombo-embolischer Komplikationen aus pathologisch-anatomischer Sicht. In: Hierholzer G, Weller S (Hrsg) Traumatologie aktuell, Bd 13. Thrombose-Prophylaxe in der Unfallchirurgie, Expertengespräch. Georg Thieme, Stuttgart New York, S 1–5
 39. Byrne B (2001) Deep vein thrombosis prophylaxis: the effectiveness and implications of using below-knee or thigh-length graduated compression stockings. Heart Lung 30(4):277–284
 40. Capper C (1998) External pneumatic compression therapy for DVT prophylaxis. Br J Nurs 7(14): 851–854
 41. Carn RM, Miranda IP, Greene ER (1986) Femoral vein flow velocity for devices used in the prevention of deep vein thrombosis. Orthop Trans 10:394
 42. Carpenter JP, Holland GA, Baum RA, Owen RS, Carpenter JT, Cope C (1993) Magnetic resonance venography for the detection of deep venous thrombosis: comparison with contrast venography and duplex ultrasonography. J Vasc Surg 18:734–741
 43. Carre P, Forgue MF, Pipy B, Beraud M, Bessieres MH, Didier A, Leophonte P (1990) Effects of cotrimoxazole on some macrophage functions: microbicide, tumoricide, production of free oxygen radicals, prostaglandins and leukotrienes. Pathol Biol Paris 38(4):289–293
 44. Carstensen G (1989) Aktuelle juristische Probleme im Rahmen der Gefäßchirurgie. Akt Chir 21:43
 45. Carstensen G (1993) Forensic aspects of deep venous thrombosis of the leg. Orthopäde 22(2): 136–139
 46. Choay J, Petitou M, Lormeau JC, Sinay P, Casu B, Gatti G (1983) Structure activity relationships in heparin: a synthetic pentasaccharide with high affinity for antithrombin III and eliciting high anti factor Xa activity. Biochem Biophys Res Commun 116:492–499
 47. Christ F, Helpap B, Lindecken D (1980) Generalisierte thrombotische Diathese bei paroxysmaler nächtlicher Hämoglobinurie. Med Welt 31:1465
 48. Chylarecki Ch, Hierholzer G (1994) Möglichkeiten der physikalischen Thrombembolie-Prophylaxe. In: Hierholzer G, Weller S (Hrsg) Traumatologie aktuell, Bd 13. Thrombose-Prophylaxe in der Unfallchirurgie, Expertengespräch. Georg Thieme, Stuttgart New York, S 23–32
 49. Cirlincione AS, Mendicino R, Catanzariti AR, Grossman J (2001) Low-molecular-weight heparin for deep vein thrombosis prophylaxis in foot and ankle surgery: a review. J Foot Ankle Surg 40(2): 96–100
 50. Cisek LJ, Walsh PC (1993) Thromboembolic complications following radical retropubic prostatectomy. Influence of external sequential pneumatic compression devices. Urology 42(4):406–408
 51. Coleridge-Smith PD, Hasty JH, Scurr JH (1991) Deep vein thrombosis: effect of graduated compression stockings on distension of the deep veins of the calf. Br J Surg 78(6):724–726
 52. Consensus conference (1986) Prevention of deep venous thrombosis and pulmonary embolism. JAMA 256:744–749
 53. Cotton LT, Roberts VC (1977) The prevention of deep vein thrombosis with particular reference to mechanical methods of prevention. Surgery 2: 228–235
 54. Crafoord C (1937) Preliminary report on post-operative treatment with heparin as a preventive of thrombosis. Acta Chir Scand 79:407–426
 55. Cronan JJ (1992) Ultrasound evaluation of deep venous thrombosis. Seminars Roentgenology 27:39–52
 56. Crutchley DJ, Conanan LB, Que BG (1994) Effects of Prostacyclin analogs on the synthesis of tissue factor, tumor necrosis factor-alpha and interleukin-1 beta in human monocytic THP-1 cells. J Pharmacol Exp Ther 271(10):446–451
 57. Crutchley DJ, Que BG (1995) Copper-induced tissue factor expression in human monocytic THP-1 cells and its inhibition by antioxidants. Circulation 92(2):238–243

58. Dai G, Gertler JP, Kamm RD (1999) The effects of external compression on venous blood flow and tissue deformation in the lower leg. *J Biomech Eng* 121(6):557–564
59. Danner ThE, Bernett P (1990) Tiefe Beinvenenthrombosen nach Knie- und Sprunggelenksverletzungen. *Dtsch Z Sportmed* 41:428–435
60. Davie WE, Ratnoff OD (1964) Waterfall sequence for intrinsic blood clotting. *Science* 145:1310–1312
61. Delis KT, Slimani G, Hafez HM et al. (2000) Enhancing venous outflow in the lower limb with intermittent pneumatic compression. A comparative haemodynamic analysis on the effect of foot vs. calf vs. foot and calf compression. *Eur J Vasc Endovasc Surg* 19(3):250–260
62. Dejana E, Breviario F, Erroi A, et al. (1987) Modulation of endothelial cell functions by different molecular species of interleukin 1. *Blood* 69(2):695–699
- 62a. Dickneite G, Nicolay U, Friesen HJ, Reers M (1998) Development of an anti-bleeding agent for recombinant hirudin induced skin bleeding in the pig. *Thromb Haemost* 80(1):192–198
63. Dolan GJ, Ball E, Preston E (1989) Protein C and Protein S. In: Tuddenham EGD (ed) *The Molecular Biology of Coagulation*. Baillière's Clinical Haematology, vol 2/4. Baillière Tindall, London, pp 961–998
64. Eekhoff EM, Rosendaal FR, Vandenbroucke JP (2000). Minor events and the risk of deep venous thrombosis. *Thromb Haemost* 83(3):408–411
65. Eisele R, Gfrörer W, Kinzl L (1996) Ambulante Thromboseprophylaxe nach Risikofaktoren oder funktionellen Gesichtspunkten? *Langenbecks Arch Chir Suppl II (Kongressbericht)*: 1203
66. Eisele R, Kinzl L (1995) Minimierung der postoperativen Thromboseinzidenz durch verbesserten venösen Rückfluß an der unteren Extremität mit einer optimierten Bewegungsschiene. *Akt Traumatol* 25(8):269–272
67. Eisele R, Kinzl L (1996) Ambulante Thromboseprophylaxe in der Nachbehandlung von Sportverletzungen. *Dtsch Z Sportmed* 47(3):84–89
- 67a. Eisele R, Langhoff F, Kinzl L (2003) Post-thrombotic syndrome after calf vein thrombosis: a 10-year follow-up. *J Am Coll Angiol*, pp 147–157
68. Eisele R, Orend K-H, Mohr M, Schulte M (1996) The Age of a Venous Thrombosis: Experimental and Clinical Experience with Duplex Color-Coded Ultrasound. *Vasc Surg* 30(4):301–309
69. Eisele R, Orend K-H, Sunder-Plassmann L, Kinzl L (1996) Neue Aspekte in der sonografischen Altersbestimmung von tiefen Beinvenenthrombosen. *Vasomed Phlebol* 8(3):132–138
70. Eisele R, Orend K-H, Mohr M (1994) Farbcodierte Duplex-Sonografie. Experimentelle und klinische Erfahrungen zur orientierenden Altersbestimmung von tiefen Unterschenkelthrombosen. *Zentralbl Chir* 119(Suppl 1):177–179
71. Eisele R, Orend K-H, Mentzel M, Mohr M, Kinzl L (1994) Farbcodierte Duplex-Sonografie – Experimentelle und klinische Erfahrungen in der orientierenden Altersbestimmung von tiefen Beinvenenthrombosen. *Bildgebung Ultraschalldiagnostik* '94 61(Suppl 2):94
72. Eisele R, Strecker W, Gfrörer W, Kinzl L (1997) Intramedullar pressure reduction in the femur shaft in total endoprosthesis. *Unfallchirurg* 100(6):438ff
73. Elias A, Le Corff G, Bouvier JL, Benichou M, Seradimigni A (1987) Value of real-time B-mode ultrasound imaging in the diagnosis of deep vein thrombosis of the lower limbs. *Intern Angio* 6:175–182
74. Elliott CG, Dudney TM, Egger M et al. (1999) Calf-thigh sequential pneumatic compression compared with plantar venous pneumatic compression to prevent deep-vein thrombosis after non-lower extremity trauma. *J Trauma* 47(1):25–32
75. Eriksson BI, Kaleb P, Anthmyr BA, Wadenvik H, Tengborn T, Risberg B (1988) Prevention of Deep-Vein-Thrombosis and Pulmonary Embolism after total hip replacement. Comparison of low-molecular-weight-heparin and unfractionated heparin. *Br J Surg* 75:1053
76. European Consensus Statement (1992) Prevention of venous thromboembolism. *Internat Angiology* 1(1):151–159
77. Evans A, Sostman HD, Knelson MH, Spritzer CE, Newman GE, Paine SS, Beam CA (1993) Detection of deep venous thrombosis: prospective comparison of MR imaging with contrast venography. *AJR* 161:131–139
78. Fareed J, Haas S, Sasahar A (1999) Past, present and future considerations on low molecular weight heparin differentiation: an epilogue. *Semin Thromb Hemost* 25(3):145–147
79. Fletscher AP, Alkajaersig NK, Burstein R (1979) The influence of pregnancy upon blood coagulation and plasma fibrinolytic enzyme function. *Thrombos Haemostas* 42:135
80. Fobbe F, Felsenberg D, Laaß C, Sörensen R (1988) Tele-Thermographie bei der Diagnostik tiefer Beinvenenthrombosen. *Fortschr Röntgenstr* 149:31–34
81. Fordyce MJF, Ling RSM (1992) A venous foot pump reduces thrombosis after whole hip replacement. *J Bone Joint Surg (Br)* 74:45–49
82. Francis CW, Pellegrini VD, Stulberg BN et al. (1990) Prevention of venous thrombosis after total knee Arthroplasty: comparison of antithrombin III and low-dose heparin, with dextran. *J Bone Joint Surg (Am)* 72:976–982
83. Franke RP, Fuhrmann R, Schnittler HJ, Petrow W, Simons G (1988) Humane Endothelzellen in vitro unter dynamischer Scherbelastung: Pharmakologische Einflüsse auf die Haftfähigkeit und Non-thrombogenität der Gefäßinnenwandzellen. *Vasa Suppl* 24:11–16
84. Fürst G, Kuhn F, Mödder U (1990) Farbcodierte Dopplersonografie der tiefen Venenthrombose. Möglichkeiten und Grenzen im Bereich der Becken- und Unterschenkelvenen sowie der Erfassung post-thrombotischer Veränderungen. *Röntgen Blätter* 43:195–202

85. Furlan M (1986) Factor VIII/von Willebrand Factor: a multivalent ligand binding to platelets and collagen. *Blut* 52:239–336
86. Gardner AMN, Fox RH, Lawrence C et al. (1990) Reduction of post-traumatic swelling and compartment pressure by impulse compression of the foot. *J Bone Joint Surg (Br)* 72:810–815
87. Gallus AS (1999) Applying risk assessment models in orthopaedic surgery: overview of our clinical experience. *Blood Coagul Fibrinolysis* 10(2): 53–61
88. Gearhart MM, Luchette FA, Proctor MC et al. (2000) The risk assessment profile score identifies trauma patients at risk for deep vein thrombosis. *Surgery* 128(4):631–640
89. Gehling H, Leppke R, Künneke M, Gotzen L, Giannadakis G, Hinkel J (1994) Ist eine Thromboembolieprophylaxe bei ambulanten und konservativer Therapie der fibularen Bandruptur des oberen Sprunggelenkes erforderlich? *Unfallchirurg* 97:362–365
90. Gibbs NM (1957) Venous thrombosis of the lower limbs with particular reference to bed rest. *Br J Surg* 45:209–236
91. Godal HC, Gjengedal G (1971) Activation of coagulation by heparin-protamine complexes as demonstrated by Thrombotest. *Scand J Haemat* 8:194
- 91a. Gonzalez Ordonez AJ, Medina Rodriguez JM, Martin L, Alvarez V, Coto E (1999) The O blood group protects against venous thromboembolism in individuals with the factor V Leiden but not the prothrombin (factor II G20210A) mutation. *Blood Coagul Fibrinolysis* 10(5):303–307
92. Gore I, Hirst A, Tanaka K (1964) Myocardial infarction and thromboembolism. *Arch intern Med* 113:323
93. Greinacher A, Eichler P (1995) Die Heparinassoziierte Thrombozytopenie – Klinik, Labordiagnostik, Pathophysiologie und Therapie. *DG Klinische Chemie Mitteilungen* 26:195–204
94. Griffith TN, Henderson AH (1989) EDRF and the regulation of vascular tone. *Int J Microcirc Clin Exp* 8:383–396
95. Haas S, Breddin H, Breyer HG, Encke A, Klein G, Koppenhagen K, Lippert H, Zagrodnick J (1993) Thromboembolieprophylaxe mit niedermolekularem Heparin. *Chirurg Gastroenterologie* 9:393–401
96. Haas S, Haas P (1996) Pathogenese und Pathophysiologie der venösen Thrombose. In: Haas S, Haas P (Hrsg) *Niedermolekulare Heparine – Die Anwendung in Klinik und Praxis*. Zett, Steinen, S 17ff
97. Haas S (1997) Thromboembolieprophylaxe in der Unfall- und orthopädischen Chirurgie. *Orthopäde* 26:1062–1074
98. Habscheid W, Becker W, Höhmann M (1989) Diagnostik der tiefen Beinvenenthrombose. *Dtsch Med Wschr* 114:837–844
99. Habscheid W, Höhmann M, Klein S (1990) Kompressionssonografie als Verfahren zur Diagnose der akuten tiefen Beinvenenthrombose. *Med Klin* 85:6–12
100. Habscheid W, Landwehr P (1990) Diagnostik der akuten tiefen Beinvenenthrombose mit der Kompressionssonographie. *Ultraschall* 11:268–273
101. Hach-Wunderle V (1994) Die venöse Thrombose: Konzepte der Pathogenese. *Die gelben Hefte* 34:124–128
102. Harenberg J, Huhle G, Piazolo L, Malsch R (1996) Neue Entwicklungen auf dem Gebiet der Thrombotherapie. *Die Medizinische Welt* 47(3):103–107
103. Harker LA (1996) Thrombin und seine Inhibitoren. *Die gelben Hefte* 36:53–58
104. Harris WH, Salzman EW, DeSanctis RW, Coutts RD (1972) Prevention of venous thromboembolism following total hip replacement: warfarin vs dextran 40. *J Am Med Assoc* 220:1319–1322
105. Hartel W, Euche A, Koppenhagen K et al. (2000) Empfehlungen zur stationären und ambulanten Thromboembolieprophylaxe in der Chirurgie. *Expertengespräch zur Thromboembolie-Prophylaxe*. Beilage zu den Mitteilungen der Dt Ges f Chirurgie, Heft 3/2000
106. Havig O (1977) Deep vein thrombosis and pulmonary embolism: an autopsy study with multiple regression analysis of possible risk factors. *Acta Chir Scand, Suppl* 478:1–120
107. Hirsh J (1992) Detection of deep venous thrombosis by compression ultrasonography. *Ann Intern Med* 116:54
108. Hladovec J (1989) The role of endothelium of vascular diseases. *Cor vasa* 31:433–443
109. Holmer E, Kurachi K, Söderström G (1981) The molecular weight dependency of the rate enhancing effect of heparin on the inhibition of thrombin, factor IXa, Xa, XIa, XIIa and kallikrein by antithrombin. *Biochem J* 193:395–400
110. Homans J (1954) Thrombosis of deep leg veins due to prolonged sitting. *New Engl J Med* 250: 148
111. Howard AW, Aaron SD (1998) Low molecular weight heparin decreases proximal and distal deep venous thrombosis following total knee arthroplasty. A meta-analysis of randomized trials. *Thromb Haemost* 79(5):902–906
112. Howell W, Holt E (1918) Two new factors on blood coagulation: Heparin and proantithrombin. *Am J Physiol* 48:328–334
113. Huang A, Barber N, Northeast A (2000) Deep vein thrombosis prophylaxis protocol needs active enforcement. *Ann R Coll Surg Engl* 82(1): 69–70
114. Hui AC, Heras-Palou C, Dunn I, Triffitt PD, Croizier A, Imeson J, Gregg PJ (1996) Graded Compression Stockings For The Prevention Of Deep-Vein Thrombosis after Hip Surgery and Knee Replacement. *J Bone Joint Surg (Br)* 78(4): 50–54
115. Hull R, Hirsh J, Sackett D et al. (1981) Clinical validity of a negative venogram in patients with clinically suspected venous thrombosis. *Circulation* 64:622–625

116. Hull RD, Raskob GE (1986) Prophylaxis of venous thromboembolic disease following hip and knee surgery. *J Bone Joint Surg (Am)* 68:146–150
117. Ibarra-Perez C et al. (1988) Prevalence and prevention of deep venous thrombosis of the lower extremities in high-risk pulmonary patients. *Angiology* 39(6):505–513
118. Jocia CY (1974) Does peroperative pneumatic tourniquet cause thrombosis? A venographic study. *J Oslo City Hosp* 24(5):69–73
119. Kamran SI, Downey D, Ruff RL (1998) Pneumatic sequential compression reduces the risk of deep vein thrombosis in stroke patients. *Neurology* 50(6):1683–1688
120. Kienast J, Leppelmann M, van de Loo J (1991) Haemostasfaktoren und koronare Herzkrankheit. Fibrinogen, Faktor VII und Plasminogen Aktivator Inhibitor. *Haemostas* 11:172–188
- 120a. Kolb G, Eisele R et al. (2003) Thrombosis and Haemostasis 6(90):1100–1105
121. Koller F (1964) Intravascular clotting and spontaneous fibrinolysis. *Acta Haemat* 31:239
122. Korninger HC (1991) Thromboseprophylaxe in der Traumatologie. *Unfallchirurgie* 17(Suppl 1): 14–15
123. Krähenbühl B, Walser A, Moser G (1980) Hémodynamique per-opératoire des membres inférieurs: approche de la physiopathologie de la thrombose veineuse profonde. *Swiss Med* 2, 4a:89
124. Kroese AJ, Stiris G (1976) The risk of deep vein thrombosis after operations on a bloodless lower limb. A venographic study. *Injury* 7(4):271–273
125. Kroll HR, Odderson IR, Allen FH (1998) Deep vein thrombi associated with the use of plastic ankle-foot orthoses. *Arch Phys Med Rehabil* 79(5):576–578
- 125a. Kronsbein H, Dissertation (noch nicht abgeschlossen) Universität Ulm, Med. Fakultät, Abteilung für Unfall-, Hand- und Wiederherstellungschirurgie
126. Kurisaki E, Hiraiwa K (1989) Changes of leukotrienes in rabbits subjected to tourniquet shock. *Fukushima J Med Sci* 35(1):13–18
127. Kushlinskii NE, Bassalyk LS, Liakina IT et al. (1992) The characteristics of eicosanoid synthesis in osteogenic sarcoma in children at puberty. *Vopr Onkol* 38(8):929–935
128. Langenecker SA, Felfernig M, Werba H et al. (1994) Anticoagulation with prostacyclin and heparin during continuous venovenous hemofiltration. *Crit Care Med* 22(11):1774–1781
129. Lassen MR, Borris LC, Christiansen HM et al. (1991) Prevention of thromboembolism in 190 hip arthroplasties: comparison of LMW heparin and placebo. *Acta Orthop Scand* 62:33–38
130. Lassen MR, Borris LC, Bäck S et al. (1999) Clinical limitations of risk assessment models. *Blood Coagul Fibrinolysis* 10(2):45–51
131. Lechner K (1987) Lupus anticoagulants and thrombosis. In: Verstraete M, Vermeylen J, Lijnen HR, Arnout J (eds) *Thrombosis and Haemostasis*. Leuven University Press, Leuven, pp 525–547
132. Lensing AWA, Prandoni P, Brandjes D et al. (1989) Detection of deep-vein thrombosis by real-time B-mode ultrasound. *N Engl J Med* 320: 342–345
133. Levi M, Roem D, Kamp AM et al. (1993) Assessment of the relative contribution of different protease inhibitors to the inhibition of plasmin in vivo. *Thromb Haemost* 69(2):141–146
134. Lewis BD, James EM, Welch TJ, Joyce JW, Hallet JW, Weaver AL (1994) Diagnosis of acute deep venous thrombosis of the lower extremities: prospective evaluation of color Doppler flow imaging versus venography. *Radiology* 192:651–655
135. Loiacono LA, Sigel B, Feleppa EJ et al. (1992) Cellularity and fibrin mesh properties as a basis for ultrasonic tissue characterization of blood clots and thrombi. *Ultrasound Med Biol* 18:399–410
136. Lotke PA, Steinberg ME, Ecker MI (1994) Significance of deep venous thrombosis in the lower extremity after total joint arthroplasty. *Clin Orthop* 299(2):25–30
137. Lundblad RL, Church FC (1995) Neutralization of heparin activity by neutrophil lactoferrin. *Blood* 85(2):421–428
138. Macek K, Havlicek K, Rehak S (1990) Prostanoids and leukotrienes in ophthalmology. Basic biochemistry and physiology of prostanoids and leukotrienes. *Cesk Oftalmol* 46(5): 349–355
139. Malone MD, Cisek PL, Comerota AJ et al. (1999) High-pressure, rapid-inflation pneumatic compression improves venous hemodynamics in healthy volunteers and patients who are post-thrombotic. *J Vasc Surg* 29(4):593–599
140. Mamman EF (1992) Pathogenesis of venous thrombosis. *Chest* 102(Suppl 6):640–644
141. Mann KG (1992) Potential analytes for the diagnosis of thrombosis. An overview. *Ann Epidemiol* 2(4):365–370
142. Mannucci PM, Giangrande PL (1992) Detection of the prethrombotic state due to procoagulant imbalance. *Eur J Haematol* 48(2):65–69
143. Marciniak E, Gockerman JP (1977) Heparin-induced decrease in circulating antithrombin III. *Lancet* II 2(8038):581
144. May R (1980) Die standardisierte generalisierte physikalische Thromboseprophylaxe. *Swiss Med* 2, 4a:89
145. Mayo ME, Halil T, Browse NL (1971) The incidence of deep vein thrombosis after prostatectomy. *Br J Urol* 43:738
146. McDonagh J, Caryl N (1987) Disorders of fibrinogen structure and function. In: Colman RW, Hirsh J, Marder VJ, Salzman EW (eds) *Haemostasis and Thrombosis*. Basic Principles and Clinical Practice. Lippincott, Philadelphia, pp 301–317
147. McLean J (1916) The thromboplastic action of cephalin. *Am J Physiol* 41:250–257

148. Michaels L (1971) Incidence of thromboembolism after stopping anticoagulant therapy. *J Am Med Ass* 215:595
149. Miric A, Lombardi P, Sculco TP (2000) Deep vein thrombosis prophylaxis: a comprehensive approach for total hip and total knee arthroplasty patient populations. *Am J Orthop* 29(4): 269–274
150. More RS, Ruddy G, Underwood MJ, Brack MJ, Gershlick AH (1994) A time sequence of vessel wall changes in an experimental model of angioplasty. *J Pathol* 172:287–292
151. Moser G, Krähenbühl B, Donath A (1980) Prévention des thromboses veineuses profondes et des embolies pulmonaires. *Swiss Med J* 2, 4a:63
152. Mühe E (1980) Die mechanische Thrombose-Prophylaxe. *Swiss Med J* 2, 4a:37
153. Murray DWG, Jaques LB, Perrett TS, Best CH (1937) Heparin and the thrombosis of veins following injury. *Surgery* 2:163–187
154. Naeye RL (1962) Thrombotic state after a haemorrhagic diathesis. A possible complication of therapy with aminocaproic acid. *Blood* 19:694
155. Nemerson Y, Turitto VT (1991) The effect of flow on hemostasis and thrombosis. *Thromb Hemost* 66(3):272–276
156. Netzer CO (1975) Die Thrombo-Embolie. *Münch Med Wschr* 117:1397
157. Neville RFJ, Hobson RW, Watanabe B et al. (1991) A prospective evaluation of arterial intimal injuries in an experimental model. *J Trauma* 31:669–674
158. Nilsson L, Rybo G (1967) Treatment of menorrhagia with an antifibrinolytic agent tranexamic acid (AMCA). A double blind investigation. *Acta Obstet Gynec Scand* 46:572
159. Oakley MJ, Wheelwright EF, James PJ (1998) Pneumatic compression boots for prophylaxis against deep vein thrombosis: beware occult arterial disease. *Br Med J* 316(7129):454–455
160. Obens T, Becker NL (1996) Dreidimensionale Echtzeit-Ganganalyse. *Orthopädieschuhtechnik* 4:37–39
161. Ofosu FA (1995) Anticoagulant actions of tissue factor pathway inhibitor on tissue-factor-dependent plasma coagulation. *Semin Thromb Hemost* 21(2):240–244
162. Pandolfi M, al-Rushood A (1991) The role of fibrinolytic factors in ischemia. *Eye* 5(2):159–169
163. Pearson TC, Wetherly-Mein G (1978) Vascular occlusive episodes and venous haematocrit in primary proliferative polycythaemia. *Lancet* 2:1219–1222
164. Parsons RE, Sigel B, Feleppa EJ et al. (1993) Age determination of experimental venous thrombi by ultrasound tissue characterization. *J Vasc Surg* 17(3):470–478
165. Parsons RE, Sigel B, Feleppa EJ et al. (1993) Ultrasonic tissue characterization of experimental venous intimal hyperplasia. *Ultrasound Med Biol* 19(4):299–308
166. Patterson RA (1998) Computerized reminder for prophylaxis of deep vein thrombosis in surgical patients. *Proc AMIA Symp*, pp 573–576
167. Pauschinger P, Matis P, Rieckert H (1968) Die Veränderung der Durchblutung im Bereich der unteren Extremität infolge Inaktivität. *Med Welt* 19:2822
168. Peter McL, Black PM, Baker MF, Snook CP (1986) Experience with external pneumatic calf compression in neurology and neurosurgery. *Neurosurgery* 18(4):440–445
169. Peytermann R et al. (1972) Thrombosis in paroxysmal nocturnal hemoglobinuria with particular reference to progressive diffuse hepatic venous thrombosis. *Ser Haematol* 5(2):115
170. Pfeifer KJ (1993) Apparative Diagnostik der venösen Thrombose. Principles of technical diagnosis of deep venous thrombosis. *Orthopäde* 22: 124–127
171. Pfister A, Pfürringer W, Rosemeyer B (1985) Epidemiologie von Sportverletzungen. *Dtsch Z Sportmed* 36(10):291–294
172. Pini M (1999) Future prospects of prophylaxis for deep vein thrombosis. *Blood Coagul Fibrinolys* 10(2):19–27
173. Planès A, Vochelle N, Fagola M (1990) Total hip replacement and deep vein thrombosis: a venographic and necropsy study. *J Bone Joint Surg (Br)* 72:9–13
174. Poller L (1978) Oral contraceptives, blood clotting and thrombosis. *Br Med Bull* 34:151
175. Probst J (1996) Lebensqualität – eine Aufgabe der Unfallchirurgie. *Mitt Nachr Dtsch Ges Unfallchir* 18(Suppl 1):7–9
176. Prydz H, Pettersen KS (1988) Synthesis of thromboplastin (tissue factor) by endothelial cells. *Haemostasis* 18:215–223
177. Reilmann H (1991) Thromboseprophylaxe bei ambulanten und poststationären Patienten. *Unfallchirurgie* 17(Suppl 1):12–15
178. Renesto P, Ferrer-Lopez P, Chignard M (1990) Interference of recombinant eglin C, a proteinase inhibitor extracted from leeches, with neutrophil-mediated platelet activation. *Lab Invest* 62(4):409–416
179. Richardson M, Hatton MW, Buchanan MR, Moore S (1990) Wound healing in the media of the normolipemic rabbit carotid artery injured by air drying or by balloon catheter de-endothelialization. *Am J Pathol* 137:1453–1465
180. Rieger H, Schmid-Schönbein H (1979) Prinzipielle Bedingungen der Plättchenaggregation – rheologische und methodische Aspekte. In: Hild R, Spaan G (Hrsg) *Therapiekontrolle in der Angiologie*. Witzstrock, Baden-Baden, S 340
181. Roessler R (1937) Über die Bedeutung und Entstehung der Wadenvenenthrombosen. *Virchows Arch* 300:180
182. Rose SC, Zwiebel WJ, Nelson BD et al. (1990) Symptomatic lower extremity deep venous thrombosis: accuracy, limitations, and role of

- color duplex flow imaging in diagnosis. *Radiology* 175:639–644
183. Rosenberg RD, Damus PS (1973) The purification and mechanisms of action of human anti-thrombin-heparin cofactor. *J Biol Chem* 248:6490–6505
 184. Rosing J, van Rijn JLM, Bevers EM, van Dieijen G, Comfurius P, Zwaal RF (1985) The role of activated platelets in prothrombin and factor X activation. *Blood* 65:319–332
 185. Roth RI (1994) Hemoglobin enhances the production of tissue factor by endothelial cells in response to bacterial endotoxin. *Blood* 83(10):2860–2865
 186. Rottingen JA, Enden T, Camerer E, Iversen JG, Prydz H (1995) Binding of human VIIa to tissue factor induces cytosolic signals in J82 cells, transfected COS-1 cells, Madin-Darby kidney cells and in human endothelial cells induced to synthesize tissue factor. *J Biol Chem* 270(9):4650–4660
 187. Sainte-Laudy J, Vallon C, Guerin JC (1996) Importance of the leukotriene C4 liberation test for the diagnosis of drug allergy (preliminary results). *Allerg Immunol Paris* 28(2):44–47
 188. Samama M, Conrad J, Horellou MH, Elalamy I, Van Dreden P (1992) The congenital deficiencies in antithrombin III, Protein C and Protein S, clinical aspects. *Angiology suppl* 1:107
 189. Samama M, Simonneau G, Wainsten J-P et al. (1992) Sirius-study; Epidemiology of risk factors of deep vein thrombosis of the lower limbs in community practice. *Angiology suppl* 1:1
 190. Sandritter RW, Felix H (1967) Geographical pathology of fatal lung embolism. *Path Microbiol (Basel)* 30:742
 191. Santavirta S, Hockerstedt K, Linden H (1978) Pneumatic tourniquet and limb blood flow. *Acta Orthopaed Scand* 49(6):565–570
 192. Sarkar MR (1996) Brauchen wir die Blutsperrung noch? *Unfallchirurg* 99:374–378
 193. Schaub N, Duckert F, Fridrich R, Gruber UF (1975) Häufigkeit postoperativer tiefer Venenthrombosen bei Patienten der Allgemeinen Chirurgie und Urologie. *Langenbecks Arch Chir* 340:23
 194. Schewe G (1990) Sind kontrollierte Therapiestudien aus Rechtsgründen undurchführbar? In: Koller S (Hrsg) *Therapiestudien*. Springer, Berlin Heidelberg, S 143
 195. Schina MJ, Neumyer MM, Healy DA et al. (1993) Influence of age on venous physiologic parameters. *J Vasc Surg*, 18:749–752
 196. Schmit-Neuerburg KP, Kock HJ (1991) Empfehlungen zur Thromboseprophylaxe bei ambulanten Patienten. *Unfallchirurgie* 17(Suppl 1):3–8
 197. Schönhofer B, Bundschu HD, Wolf K, Grehn S (1992) Farbcodierte Duplex-Sonografie im Vergleich zur Phlebografie bei tiefer Bein- und Beckenvenenthrombose. *Med Klin* 87:172–178
 198. Schramm W (1992) Gesichertes in der perioperativen Thromboseprophylaxe. *BDC Akademie* 2:1–8
 199. Schramm W, Breddin HK, Senn E, Kuámann J, Mellerowicz H (1995) Gesichertes in der perioperativen Thromboseprophylaxe. *BDC* 2:1–11
 200. Schreiber HL (1980) Risiko und erforderlicher Standard in der Neurochirurgie – Überholtes, Notwendiges, Unerprobtes. *Advanc Neurosurg* 18:294
 201. Schreiber HL (1984) Rechtliche Maßstäbe des medizinischen Standards. *Langenbecks Arch Chir* 364:295
 202. Schreiber A (1991) Zur erforderlichen Sorgfalt bei der Thromboseprophylaxe. *Unfallchirurgie* 17(Suppl 1):19–21
 203. Sevitt S (1962) Venous thrombosis and pulmonary embolism. Their prevention by oral anticoagulants. *Am J Med* 33:703
 204. Sevitt S, Innes D (1963) Evidence against “rebound” thrombosis after stopping oral anticoagulant drugs. *Lancet* 186:974–975
 205. Sevitt S (1969) Venous thrombosis in injured patients. In: Sherry S, Brinkhous KM, Genton E, Stengle JM (eds) *Thrombosis*. National Academy of Sciences, Washington DC, p 45ff
 206. Shashkin PN et al. (1990) Arachidonic acid metabolism in the neutrophilic granulocytes in lymphogranulomatosis. *Vopr Onkol* 36(10):1192–1196
 207. Shigekiyo T, Uno Y, Tomonari A (1992) Type I congenital plasminogen deficiency is not a risk factor for thrombosis. *Thrombos Haemostas* 67:189–192
 208. Simon R (1999) Die Reisethrombose – ein mögliches Risiko auf Langstreckenreisen. *Wien Klin Wochenschr* 111(15):596–602
 209. Sjöberg HE, Blombäck M, Granberg PO (1976) Thromboembolic complications, heparin treatment and increase in coagulation factors in Cushing’s syndrome. *Acta Med Scand* 199:95
 210. Spaeth EE, Roberts GW, Ng PK, Yadwadkar SR, Jackson CM (1973) The influence of fluid shear on the kinetics of blood coagulation reactions. *Trans Am Soc Artif Int Organs* 19:179
 211. Spain DA, Bergamini TM, Hoffmann JF et al. (1998) Comparison of sequential compression devices and foot pumps for prophylaxis of deep venous thrombosis in high-risk trauma patients. *Am Surg* 64(6):522–525
 212. Stannard JP, Riley RS, McClenney MD et al. (2001) Mechanical prophylaxis against deep-vein thrombosis after pelvic and acetabular fractures. *J Bone Joint Surg (Am)* 83(7):1047–1051
 213. Straub H (1989) The advantages and disadvantages of surgical prevention of thrombosis. *Akt Traumatol* 19(1):1–5
 214. Stürmer KM, Kock HJ (1994) Thromboserisiko bei ambulanten, stationären und poststationären Patienten. In: Hierholzer G, Weller S (Hrsg) *Traumatologie aktuell*, Bd 13. *Thrombose-Prophylaxe in der Unfallchirurgie*. Georg Thieme, Stuttgart New York, S 11–18
 215. Tannenbaum SH, Rick MR, Shafer B, Gralnick HR (1989) Subendothelial matrix of cultured endothelial cells contains fully processed high mo-

- lecular weight von Willebrand factor. *J Lab Clin Med* 113(3):373–377
216. Tilsner V, Eifrig B, Schontay H, Reuter H (1989) Intraoperative Gerinnungsaktivierung – Untersuchungen an einem definierten Patientengut der Unfallchirurgie. *Folia Haematol Leipzig* 116:915–925
217. Triefloff I (1997) Rekombinantes Hirudin – Neue Perspektiven der antikoagulativen Behandlung und Prophylaxe. *Haemostaseologie* 17:71–72
218. Turitto TV, Baumgartner HR (1979) Platelet interaction with subendothelium in flowing rabbit blood: effect of blood shear rate. *Microvasc Res* 17:38
219. Überla KK (1981) Therapiestudien: Indikation, Erkenntniswert und Herausforderung. In: Koller S (Hrsg) *Therapiestudien*. Springer, Berlin Heidelberg, S 8
220. Ulsenheimer K (1994) Zur zivil- und strafrechtlichen Verantwortlichkeit des Arztes bei unterlassener Thromboseprophylaxe im poststationären und ambulanten Bereich. *Chirurg BDC* 33(6):128–132
221. Vanscheidt W, Wokalek H, Vanscheidt E et al. (1990) Malleoläre und plantare Lichtreflexionsrheografie. *Dermatol Mon Schr* 176:605–608
- 222a. Vessey MP, Doll R (1968) Investigation of relation between use of oral contraceptives and thromboembolic disease. *Br Med J* 2:199
- 222b. Vessey MP, Doll R (1969) Investigation of relation between use of oral contraceptives and thromboembolic disease. *Br Med J* 2:651
223. Vinnicombe J, Shuttleworth KED (1966) Aminocaproic acid in the control of haemorrhage after prostatectomy. Safety of aminocaproic acid – a controlled trial. *Lancet* 1:232–234
224. Vyalov SL, Rekhter MD, Sidorov VB, Pshenisnov KP, Mironov AA (1992) Formation of endovasal structures and intramural channels in rat vena cava after application of microsurgical suture: prophylactic effect of heparin and trental administration. *Microsurg* 13:143–150
225. Walser A, Moser G, Krähenbühl B (1980) Per- und postoperative Stase als Thrombosefaktor? *Vasa* 9:306
226. Weißauer W (1993) Niedermolekulare Heparine mit begrenzter Zulassung. *Fortschr Med* 111(25):40–42
- 226a. Wells P (1997) Value of assessment of preset probability of DVT in clinical management. *Lancet* 350:1795–1798
227. Welzel D (1993) Prinzipien zur Beeinflussung der venösen Stase. *Haemostaseol* 13:15–20
228. Werthemann A, Rutishauser G (1955) Zur pathologischen Anatomie der Thrombose. In: Koller TH, Merz WR (Hrsg) *Thrombose und Embolie*. Schwabe, Basel
229. Westrich GH, Menezes A, Sharrock N, Sculco TP (1999) Thromboembolic disease prophylaxis in total knee arthroplasty using intraoperative heparin and postoperative pneumatic foot compression. *J Arthroplasty* 14(6):651–656
230. Wheeler HP (1992) Prophylaxis against venous thromboembolism: a study of physician practice. *Angiology* 1(suppl):2
231. Wille Jorgensen P (2000) New therapeutic options in DVT prophylaxis. *Orthoped* 23(6):639–642
232. Wintrobe MM (1975) Sickle cell trait and sickle cell anemia. *Clin Hematol (Am)* 7:823
233. Witschi L (1980) Thromboembolieprophylaxe ohne Antikoagulation. *Swiss Med* 2(4a):41
234. Woods HF, Dawson A, Ash G et al. (1978) Heparin-induced decrease in circulating antithrombin III. *Lancet* I 234:209
235. Yoshihide I, Atsuko O (1991) Elevation of platelet cyclic AMP level by thromboxane and in H2 receptor agonist. *Thromb Res* 64:667–676

Sachverzeichnis

A

Aggregationshemmer 15
Antidote 89
Antifibrinolytika 12
Antikoagulanzen 14
Antikoagulation 88
Antikontrazeptiva, orale 12
Antithrombin-III-Mangel 6
APC-Resistenz 7
Aspekte, gesundheitsökonomische 75
Aufklärungspflicht 74

B

B-Bild-Sonographie 17
Beinvenenthrombose, tiefe 17
Belastung, quasi-physiologische 37, 38
Bewegungsumfang, quasi-physiologischer 40
Blutgerinnung 2
Blutgerinnungsfaktoren 4

C

Computertomographie (CT) 19
Corticosteroide 12

D

Dehydratation 12
Dextrane 14
Diagnostik, laborchemische 20
Doppler-Sonographie 17
Duplex-Sonographie 18, 33
– farbkodierte (FKDS) 19, 25

E

Endotoxin 8
Ernährung 10
Europäische Konsensus-
Erklärung 2

F

Faktoren, antithrombotische 5
Faktor-II-G20210A-Mutation 7

G

Gerinnung
– humorale 1
– thrombozytische 1
Gerinnungskaskade 2, 82
Gerinnungsschema 82

H

Heparin 15, 81
– low-dose 2
– niedermolekulares 15
Heparinoide 16
Hirudin 6, 16
Homocystinurie 8

I

Immobilisierung 11
Interleukine 8
International normalized ratio
(INR) 21

K

Kernspintomographie 19

L

Leukotriene 8
Lupusantikoagulanzen 8

M

MR-Venographie 19

N

Nuklearmedizin 20

P

Pentasaccharide 16
Phlebographie 17
Physiotherapie 61
Protein-C-Mangel 6
Protein-S-Mangel 6

Q

Quick-Wert 21

R

Rauchen 10

T

Thermographie 20
Thrombembolie-Prophylaxe-
konzept 64 ff
Thrombin 4 ff
Thrombopenie 16
Thrombophiliescreening 22
Thromboseinzidenz 9, 13
Thromboseprophylaxe 13, 14,
44 ff., 83
– Management 76
– medikamentöse 42, 56, 70, 84
– physikalische Maßnahmen 58
– Rehabilitation 52 ff

U

Übergewicht 10

V

Vena Flow 62
Venenthrombose
– akute 28 ff
– ältere 31
Venenschlussplethysmo-
graphie 20

X

Ximelagatran 16