

Literatur

Zelltherapie mit Granulozyten, Lymphozyten und Natürlichen Killerzellen

- (1) Arnold R, Pflieger H, Dietrich M, Heimpel H. The clinical efficacy of granulocyte transfusions: studies on the oral cavity. *Blut.* 1977; 35: 405-414.
- (2) Rutella S, Pierelli L, Sica S et al. Efficacy of granulocyte transfusions for neutropenia-related infections: retrospective analysis of predictive factors. *Cytotherapy.* 2003; 5: 19-30.
- (3) Liles WC, Huang JE, Llewellyn C et al. A comparative trial of granulocyte-colony-stimulating factor and dexamethasone, separately and in combination, for the mobilization of neutrophils in the peripheral blood of normal volunteers. *Transfusion.* 1997; 37: 182-187.
- (4) Heuft HG, Goudeva L, Sel S, Blasczyk R. Equivalent mobilization and collection of granulocytes for transfusion after administration of glycosylated G-CSF (3 microg/kg) plus dexamethasone versus glycosylated G-CSF (12 microg/kg) alone. *Transfusion.* 2002; 42: 928-934.
- (5) Lee JH, Leitman SF, Klein HG. A controlled comparison of the efficacy of hetastarch and pentastarch in granulocyte collections by centrifugal leukapheresis. *Blood.* 1995; 86: 4662-4666.
- (6) Wissenschaftlicher Beirat der Bundesärztekammer. Richtlinien zur Gewinnung von Blut und Blutbestandteilen und zur Anwendung von Blutprodukten (Hämotherapie). www.baek.de. 2005.
- (7) Bux J, Einsele H. Granulozytenkonzentrate. In: Bundesärztekammer, ed. Leitlinien zur Therapie mit Blutkomponenten und Plasmaderivaten. Köln: Deutscher Ärzte-Verlag; 2003: 51-61.
- (8) Council of Europe. Council of Europe Guide to the Preparation, Use and Quality Assurance of Blood Components. 9th edition. 2005. Strasbourg, France, Council of Europe Publishing.
- (9) Worel N, Kurz M, Peters C, Hocker P. Serial granulocytapheresis under daily administration of rHuG-CSF: effects on peripheral blood counts, collection efficiency, and yield. *Transfusion.* 2001; 41: 390-395.
- (10) von Laer D, Serr A, Meyer-Konig U et al. Human cytomegalovirus immediate early and late transcripts are expressed in all major leukocyte populations in vivo. *J Infect Dis.* 1995; 172: 365-370.
- (11) Nichols WG, Price T, Boeckh M. Donor serostatus and CMV infection and disease among recipients of prophylactic granulocyte transfusions. *Blood.* 2003; 101: 5091-5092.
- (12) Vij R, DiPersio JF, Venkatraman P et al. Donor CMV serostatus has no impact on CMV viremia or disease when prophylactic granulocyte transfusions are given following allogeneic peripheral blood stem cell transplantation. *Blood.* 2003; 101: 2067-2069.
- (13) Lightfoot T, Gallelli J, Matsuo K et al. Evaluation of solutions for the storage of granulocyte colony-stimulating factor-mobilized granulocyte concentrates. *Vox Sang.* 2001; 80: 106-111.
- (14) Schmitt A, Reinhardt P, Schmitt M et al. Functional State of steroid- versus G-CSF-mobilized granulocytes: Considerations about the storage of granulocyte concentrates for neutropenic patients. *Infusionsther Transfusionsmed.* 2002; 29: 57-64.
- (15) Lightfoot T, Leitman SF, Stroncek DF. Storage of G-CSF-mobilized granulocyte concentrates. *Transfusion.* 2000; 40: 1104-1110.
- (16) McCullough J, Weiblen BJ, Fine D. Effects of storage of granulocytes on their fate in vivo. *Transfusion.* 1983; 23: 20-24.
- (17) Lane TA, Lamkin GE. Adherence of fresh and stored granulocytes to endothelial cells. Effect of storage temperature. *Transfusion.* 1988; 28: 237-242.
- (18) Bux J, Cassens U, Dielschneider T et al. Tolerance of granulocyte donors towards granulocyte colony-stimulating factor stimulation and of patients towards granulocyte transfusions: results of a multicentre study. *Vox Sang.* 2003; 85: 322-325.
- (19) Wiesneth M, Burkhardt J, Meyer T, Schrezenmeier H. Hämatopoietische Stammzelltransplantationen: Gewinnung, Präparation, klinischer Einsatz. *Hämotherapie.* 2004; 3: 16-34.

- (20) Wright DG, Robichaud KJ, Pizzo PA, Deisseroth AB. Lethal pulmonary reactions associated with the combined use of amphotericin B and leukocyte transfusions. *N Engl J Med.* 1981; 304: 1185-1189.
- (21) Dale DC, Liles WC, Summer WR, Nelson S. Review: granulocyte colony-stimulating factor-role and relationships in infectious diseases. *J Infect Dis.* 1995; 172: 1061-1075.
- (22) Jilma B, Hergovich N, Homoncik M et al. Rapid down modulation of P-selectin glycoprotein ligand-1 (PSGL-1, CD162) by G-CSF in humans. *Transfusion.* 2002; 42: 328-333.
- (23) Stroncek DF, Leonard K, Eber G et al. Alloimmunization after granulocyte transfusions. *Transfusion.* 1996; 36: 1009-1015.
- (24) Price TH, Bowden RA, Boeckh M et al. Phase I/II trial of neutrophil transfusions from donors stimulated with G-CSF and dexamethasone for treatment of patients with infections in hematopoietic stem cell transplantation. *Blood* 2000 Jun 1; 95(11): 3302-9. 95: 3302-3309.
- (25) Cesaro S, Chinello P, De Silvestro G et al. Granulocyte transfusions from G-CSF-stimulated donors for the treatment of severe infections in neutropenic pediatric patients with onco-hematological diseases. *Support Care Cancer.* 2003; 11: 101-106.
- (26) Lee JJ, Chung IJ, Park MR et al. Clinical efficacy of granulocyte transfusion therapy in patients with neutropenia-related infections. *Leukemia.* 2001; 15: 203-207.
- (27) Stanworth S, Massey E, Hyde C et al. Granulocyte transfusions for treating infections in patients with neutropenia or neutrophil dysfunction. *Cochrane Database Syst Rev.* 2005; CD005339.
- (28) Mohan P, Brocklehurst P. Granulocyte transfusions for neonates with confirmed or suspected sepsis and neutropaenia. *Cochrane Database Syst Rev.* 2003; CD003956.
- (29) Singer MS, Seibel NL, Vezina G, Choi SS, Dinndorf PA. Successful treatment of invasive aspergillosis in two patients with acute myelogenous leukemia. *J Pediatr Hematol Oncol.* 2003; 25: 252-256.
- (30) Grigull L, Schrauder A, Schmitt-Thomssen A, Sykora K, Welte K. Efficacy and safety of G-CSF mobilized granulocyte transfusions in four neutropenic children with sepsis and invasive fungal infection. *Infection.* 2002; 30: 267-271.
- (31) Cairo MS, Worcester CC, Rucker RW et al. Randomized trial of granulocyte transfusions versus intravenous immune globulin therapy for neonatal neutropenia and sepsis. *J Pediatr.* 1992; 120: 281-285.
- (32) Hubel K, Carter RA, Liles WC et al. Granulocyte transfusion therapy for infections in candidates and recipients of HPC transplantation: a comparative analysis of feasibility and outcome for community donors versus related donors. *Transfusion.* 2002; 42: 1414-1421.
- (33) Kerr JP, Liakopolou E, Brown J et al. The use of stimulated granulocyte transfusions to prevent recurrence of past severe infections after allogeneic stem cell transplantation. *Br J Haematol.* 2003; 123: 114-118.
- (34) von Planta M, Ozsahin H, Schroten H, Stauffer UG, Seger RA. Greater omentum flaps and granulocyte transfusions as combined therapy of liver abscess in chronic granulomatous disease. *Eur J Pediatr Surg.* 1997; 7: 234-236.
- (35) Lee JJ, Song HC, Chung IJ et al. Clinical efficacy and prediction of response to granulocyte transfusion therapy for patients with neutropenia-related infections. *Haematologica.* 2004; 89: 632-633.
- (36) Kolb HJ, Mittermuller J, Clemm C et al. Donor leukocyte transfusions for treatment of recurrent chronic myelogenous leukemia in marrow transplant patients. *Blood.* 1990; 76: 2462-2465.
- (37) Kolb HJ, Schmid C, Weisser M et al. Cytoreduction, DLI, or mobilized peripheral blood progenitors. *Ann Hematol.* 2002; 81 Suppl 2: S30-S33.
- (38) Slavin S, Morecki S, Weiss L, Or R. Donor lymphocyte infusion: the use of alloreactive and tumor-reactive lymphocytes for immunotherapy of malignant and nonmalignant diseases in conjunction with allogeneic stem cell transplantation. *J Hematother Stem Cell Res.* 2002; 11: 265-276.

- (39) Feinstein L, Sandmaier B, Maloney D et al. Nonmyeloablative hematopoietic cell transplantation. Replacing high-dose cytotoxic therapy by the graft-versus-tumor effect. *Ann N Y Acad Sci.* 2001; 938: 328-337.
- (40) Bacigalupo A, Palandri F. Management of acute graft versus host disease (GvHD). *Hematol J.* 2004; 5: 189-196.
- (41) Michallet AS, Nicolini F, Furst S et al. Outcome and long-term follow-up of alloreactive donor lymphocyte infusions given for relapse after myeloablative allogeneic hematopoietic stem cell transplantations (HSCT). *Bone Marrow Transplant.* 2005; 35: 601-608.
- (42) Peggs KS, Thomson K, Hart DP et al. Dose-escalated donor lymphocyte infusions following reduced intensity transplantation: toxicity, chimerism, and disease responses. *Blood.* 2004; 103: 1548-1556.
- (43) Wiesneth M, Schreiner T, Friedrich W et al. Combined CD34 positive plus CD2 negative selection for effective T-cell depletion as GvHD-prophylaxis in HLA-nonidentical blood progenitor cell transplantation. *Transfus Sci.* 1996; 17: 629-635.
- (44) Gilleece MH, Dazzi F. Donor lymphocyte infusions for patients who relapse after allogeneic stem cell transplantation for chronic myeloid leukaemia. *Leuk Lymphoma.* 2003; 44: 23-28.
- (45) Zeiser R, Bertz H, Spyridonidis A, Houet L, Finke J. Donor lymphocyte infusions for multiple myeloma: clinical results and novel perspectives. *Bone Marrow Transplant.* 2004; 34: 923-928.
- (46) Massenkeil G, Roigas J, Nagy M et al. Nonmyeloablative stem cell transplantation in metastatic renal cell carcinoma: delayed graft-versus-tumor effect is associated with chimerism conversion but transplantation has high toxicity. *Bone Marrow Transplant.* 2004; 34: 309-316.
- (47) Bishop MR, Fowler DH, Marchigiani D et al. Allogeneic lymphocytes induce tumor regression of advanced metastatic breast cancer. *J Clin Oncol.* 2004; 22: 3886-3892.
- (48) Schmid C, Schleuning M, Ledderose G, Tischer J, Kolb HJ. Sequential regimen of chemotherapy, reduced-intensity conditioning for allogeneic stem-cell transplantation, and prophylactic donor lymphocyte transfusion in high-risk acute myeloid leukemia and myelodysplastic syndrome. *J Clin Oncol.* 2005; 23: 5675-5687.
- (49) Teichmann JV, Ludwig WD, Thiel E. Cytotoxicity of interleukin 2-induced lymphokine-activated killer (LAK) cells against human leukemia and augmentation of killing by interferons and tumor necrosis factor. *Leuk Res.* 1992; 16(3): 287-98.
- (50) Pawelec G. MHC-unrestricted immune surveillance of leukemia. *Cancer Biother.* 1994; 9(3): 265-288.
- (51) Storkus WJ, Dawson JR. Target structures involved in natural killing (NK): characteristics, distribution, and candidate molecules. *Crit Rev Immunol.* 1991; 10(5): 393-416.
- (52) Smyth MJ, Hayakawa Y, Takeda K, Yagita H. New aspects of natural-killer-cell surveillance and therapy of cancer. *Nat Rev Cancer.* 2002; 2(11): 850-861.
- (53) Chumbley G, King A, Robertson K, Holmes N, Loke YW. Resistance of HLA-G and HLA-A2 transfectants to lysis by decidual NK cells. *Cell Immunol.* 1994; 155(2): 312-322.
- (54) Mandelboim O, Pazmany L, Davis DM, Vales-Gomez M, Reyburn HT, Rybalov B, Strominger JL. Multiple receptors for HLA-G on human natural killer cells. *Proc Natl Acad Sci U S A.* 1997; 94(26): 14666-14670.
- (55) Ruggeri L, Capanni M, Urbani E, Perruccio K, Shlomchik WD, Tosti A, Posati S, Roggia D, Frassoni F, Aversa F, Martelli MF, Velardi A. Effectiveness of donor natural killer cell alloreactivity in mismatched hematopoietic transplants. *Science.* 2002; 295(5562): 2097-100.
- (56) Uharek L, Zeis M, Glass B, Steinmann J, Dreger P, Gassmann W, Schmitz N, Muller-Ruchholtz W. High lytic activity against human leukemia cells after activation of allogeneic NK cells by IL-12 and IL-2. *Leukemia.* 1996; 10: 1758-1764.
- (57) Son YI, Dallal RM, Mailliard RB, Egawa S, Jonak ZL, Lotze MT. Interleukin-18 (IL-18) synergizes with IL-2 to enhance cytotoxicity, interferon-gamma production, and expansion of natural killer cells. *Cancer Res.* 2001; 61(3): 884-888.

- (58) Koehl U, Sorensen J, Esser R, Zimmermann S, Gruttner HP, Tonn T, Seidl C, Seifried E, Klingebiel T, Schwabe D: IL-2 activated NK cell immunotherapy of three children after haploidentical stem cell transplantation. *Blood Cells Mol Dis.* 2004; 33(3): 261-266.
- (59) Benyunes MC, Massumoto C, York A, Higuchi CM, Buckner CD, Thompson JA, Petersen FB, Fefer A: Interleukin-2 with or without lymphokine-activated killer cell as consolidative immunotherapy after autologous bone marrow transplantation for acute myelogenous leukemia. *Bone Marrow Transplant* 1993; 12(2): 159-163.
- (60) Hayes RL, Koslow M, Hiesiger EM, Hymes KB, Hochster HS, Moore EJ, Pierz DM, Chen DK, Budzilovich GN, Ransohoff J: Improved long term survival after intracavitary interleukin-2 and lymphokine-activated killer cells for adults with recurrent malignant glioma. *Cancer* 1995; 76(5): 840-852.
- (61) Fujimiya Y, Suzuki Y, Katakura R, Ohno T: Injury to autologous normal tissues and tumors mediated by lymphokine-activated killer (LAK) cells generated in vitro from peripheral blood mononuclear cells of glioblastoma patients. *J Hematother* 1999; 8(1): 29-37.
- (62) Rosenberg SA, Lotze MT, Yang JC, Topalian SL, Chang AE, Schwartzentruber DJ, Aebersold P, Leitman S, Linehan WM, Seipp CA: Prospective randomized trial of high-dose interleukin-2 alone or in conjunction with lymphokine-activated killer cells for the treatment of patients with advanced cancer. *J Natl Cancer Inst* 1993; 85(8): 622-632.
- (63) Kimoto Y, Tanaka T, Tanji Y, Fujiwara A, Taguchi T: Use of human leukocyte antigen-mismatched allogeneic lymphokine-activated killer cells and interleukin-2 in the adoptive immunotherapy of patients with malignancies. *Biotherapy* 1994; 8(1): 41-50.
- (64) Nagayama H, Takahashi S, Takahashi T, Ogami K, Ikebuchi K, To Tani K, Asano S: IL-2/LAK therapy for refractory acute monoblastic leukemia relapsing after unrelated allogeneic bone marrow transplantation. *Bone Marrow Transplant* 1999; 23(2): 183-185.
- (65) Whiteside TL, Vujanovic NL, Herberman RB: Natural killer cells and tumor therapy. *Curr Top Microbiol Immunol* 1998; 230: 221-244.
- (66) Gong JH, Maki G, Klingemann HG: Characterization of a human cell line (NK-92) with phenotypical and functional characteristics of activated natural killer cells. *Leukemia* 1994; 8: 652-658.
- (67) Yan Y, Steinherz P, Klingemann HG, Dennig D, Childs BH, McGuirk J, O'Reilly RJ: Antileukemia activity of a natural killer cell line against human leukemia. *Clin Cancer Res* 1998; 4: 2859-2868.
- (67) Drexler HG and Matsuo Y: Malignant hematopoietic cell lines: in vitro models for the study of natural killer cell leukemia-lymphoma. *Leukemia* 2000; 14: 777-782.
- (68) Tonn T, Becker S, Esser R, Schwabe D, Seifried E: Cellular immunotherapy of malignancies using the clonal natural killer cell line NK-92. *J Hematoth Stem Cell Res* 2001; 10(4): 535-544.
- (69) Uherek C, Groner B, Wels W: Chimeric antigen receptors for the retargeting of cytotoxic effector cells. *J Hematother Stem Cell Res* 2001; 10: 523-534.
- (70) Wiesneth M, Hertenstein B, Bunjes D, Schmeiser T, Arnold R, Heimpel H, Heit W: T-cell depletion versus methotrexate as GvHD-prophylaxis in allogeneic bone marrow transplantation for leukaemia. *Eur J Haematol* 1988; 41: 243-249.



Literatur

Die neuen Richtlinien

Ausgabe 6
2006

- (-) Richtlinien zur Gewinnung von Blut und Blutbestandteilen und zur Anwendung von Blutprodukten (*Hämotherapie*); Fassung 2000; Deutscher Ärzte-Verlag
- (-) Bundesärztekammer: Vorabinformation über die Novellierung 2005 der Richtlinien zur Gewinnung von Blut und Blutbestandteilen und zur Anwendung von Blutprodukten (*Hämotherapie*) gemäß §§ 12 u. 18 TFG
- (-) Mitteilung des Arbeitskreis Blut des Bundesministeriums für Gesundheit und soziale Sicherung: Aktuelle Empfehlungen zur autologen Hämotherapie (Votum 32 vom 17. 3. 2005)
- (-) Kretschmer V, Karger R : Neue Richtlinien zur Gewinnung von Blut und Blutbestandteilen und zur Anwendung von Blutprodukten (*Hämotherapie*) – Änderungen, Interpretationen und Kommentar; *Infus Ther Transfus Med* 2001; 28: 24 - 43, 82 - 94
- (-) Nagl D: Die neuen „Richtlinien“, in: „*hämotherapie*“ – Journal für das Krankenhaus (Blutspendedienst des Bayerischen Roten Kreuzes gGmbH), Hefte 1/2001, 2/2001, Sonderausgabe 2002 zum DGTH-Kongress, 1/2003



Literatur

Anti-HBc—Ein neuer und zugleich alter Marker in der Routinetestung von Blutspendern

- I
- (1) Richtlinien zur Gewinnung von Blut und Blutbestandteilen und zur Anwendung von Blutprodukten (*Hämotherapie*), Fassung 2000, Mit Neufassung und Kommentaren 2001, Deutscher Ärzte-Verlag Köln
 - (2) Bekanntmachung des Arbeitskreises Blut des Bundesministeriums für Gesundheit, Votum (V24), Verfahren zur Rückverfolgung (Look Back) (gemäß § 19 Transfusionsgesetz), Bundesgesundheitsbl – Gesundheitsforsch – Gesundheitsschutz 2001, 44: 305–316, Springer Verlag
 - (3) Bekanntmachung des Arbeitskreises Blut des Bundesministeriums für Gesundheit; Votum (V31), Erhöhung der Sicherheit von zellulären Blutkomponenten und quarantänegelagertem Frischplasma durch Untersuchung der Blut und Plasmaspenden auf Antikörper gegen das Hepatitis-B-Core-Antigen (Anti-HBc), Bundesgesundheitsbl – Gesundheitsforsch – Gesundheitsschutz 2005, 48: 698–699, Springer Medizin Verlag
 - (4) W. K. Roth et al., NAT for HBV and anti-HBc testing increase blood safety, TRANSFUSION 2002, 42: 869–875.

Ausgabe 6
2006