

REFERENCES

Aires NB, Sotto MN, Nico MM. Nephrogenic fibrosing dermopathy: report of two cases. *Acta Derm Venereol.* 2007;87(6):521-4.

Ammarguella F, Llovera M, Kelly PA, Goffin V: Low doses of EPO activate MAP kinases but not JAK2-STAT5 in rat vascular smooth muscle cells. *Biochem Biophys Res Commun* 284: 1031–1038, 2001

Anagnostou A, Lee ES, Kessimian N, Levinson R, Steiner M: Erythropoietin has a mitogenic and positive chemotactic effect on endothelial cells. *Proc Natl Acad Sci U S A* 87: 5978–5982, 1990

Ando M, Iwata A, Ozeki Y, Tsuchiya K, Akiba T, Nihei H: Circulating platelet-derived microparticles with procoagulant activity may be a potential cause of thrombosis in uremic patients. *Kidney Int* 62: 1757–1763, 2002

Bahlmann FH, DeGroot K, Duckert T, Niemczyk E, Bahlmann E, Boehm SM, Haller H, Fliser D: Endothelial progenitor cell proliferation and differentiation is regulated by erythropoietin. *Kidney Int* 64: 1648–1652, 2003

Ballen K: Targeting the stem cell niche: Squeezing blood from bones. *Bone Marrow Transplant* 39: 655–660, 2007

Bardin T. Musculoskeletal manifestations of chronic renal failure. *Curr Opin Rheumatol.* Jan 2003;15(1):48-54.

References

Bongartz G & Kucharczyk W. Nephrogenic systemic fibrosis: Summary of the special symposium. *J Magn Reson Imaging*. 2007;26:1179-81.

Bongartz G. Imaging in the time of NFD/NSF: do we have to change our routines concerning renal insufficiency?. *MAGMA*. Apr 2007;20(2):57-62.

Boyd AS, Zic JA, Abraham JL. Gadolinium deposition in nephrogenic fibrosing dermopathy. *J Am Acad Dermatol*. Jan 2007;56(1):27-30.

Broome DR, Cottrell AC, Kanal E. Response to "Will dialysis prevent the development of nephrogenic systemic fibrosis after gadolinium-based contrast administration?". *AJR Am J Roentgenol*. Oct 2007;189(4):W234-5.

Broome DR, Girguis MS, Baron PW, Cottrell AC, Kjellin I, Kirk GA: Gadodiamide-associated nephrogenic systemic fibrosis: Why radiologists should be concerned. *AJR Am J Roentgenol* 188: 586–592, 2007

Brown H. Gadodiamide, NSF: Direct Link Identified. *Skin and Allergy News*. 2007 Dec;Vol. 38; Issue 12 MultimediaReferences: 37.

Cacheris WP, Quay SC, Rocklage SM: The relationship between thermodynamics and the toxicity of gadolinium complexes. *Magn Reson Imaging* 8: 467–481, 1990

References

Calvi LM, Adams GB, Weibrecht KW, Weber : Journal of the American Society of Nephrology J Am Soc Nephrol 18: 2636–2643, 2007

Carlini RG, Dusso AS, Obialo CI, Alvarez UM, Rothstein M: Recombinant human erythropoietin (rHuEPO) increases endothelin- 1 release by endothelial cells. *Kidney Int* 43: 1010–1014, 1993

Cassis TB, Jackson JM, Sonnier GB, Callen JP. Nephrogenic fibrosing dermopathy in a patient with acute renal failure never requiring dialysis. *Int J Dermatol* 45: 56–59, 2006

Centers for Disease Control and Prevention. Fibrosing skin condition among patients with renal disease--United States and Europe, 1997-2002. *MMWR Morb Mortal Wkly Rep.* Jan 18 2002;51(2):25-6.

Centers for Disease Control and Prevention. Nephrogenic fibrosing dermopathy associated with exposure to gadolinium-containing contrast agents--St. Louis, Missouri, 2002-2006. *MMWR Morb Mortal Wkly Rep.* Feb 23 2007;56(7):137-41.

Ceol M, Anglani F, Vianello D, Murer L, Del Prete D, Forino M, Favaro S, Gambaro G, D'Angelo A: Direct effect of chronic cyclosporine treatment on collagen III mRNA expression and deposition in rat kidneys. *Clin Nephrol* 53[Suppl 8–9], 2000

Chewning RH & Murphy KJ. Gadolinium-based Contrast Media and the Development of Nephrogenic Systemic Fibrosis in Patients with Renal Insufficiency. *J Vasc Interv Radiol.* Mar 2007;18(3):331-3.

References

Chung HJ&Chung KY. Nephrogenic fibrosing dermopathy: response to high-dose intravenous immunoglobulin. *Br J Dermatol.* Mar 2004;150(3):596-7.

Clorius S, Technau K, Watter T, Schwertfeger E, Fischer KG, Walz G:. Nephrogenic systemic fibrosis following exposure to gadolinium-containing contrast agent. *Clin Nephrol.* Oct 2007;68(4):249-52.

Coleman TR, Westenfelder C, Togel FE, Yang Y, Hu Z, Swenson L, Leuvenink HG, Ploeg RJ, d’Uscio, LV, Katusic ZS, Ghezzi P, Zanetti A, Kaushansky K, Fox NE, Cerami A, Brines M: Cytoprotective doses of erythropoietin or carbamylated erythropoietin have markedly different procoagulant and vasoactive activities. *Proc Natl Acad Sci U S A* 103: 5965–5970, 2006

Collidge TA, Thomson PC, Mark PB, Traynor JP, Jardine AG, Morris ST: Gadolinium-enhanced MR imaging and nephrogenic systemic fibrosis: retrospective study of a renal replacement therapy cohort. *Radiology.* Oct 2007;245(1):168-75.

Cowper SE: Nephrogenic fibrosing dermopathy: The first 6 years. *Curr Opin Rheumatol* 15: 785–790, 2003

Cowper SE: Nephrogenic systemic fibrosis:The nosological and conceptual evolution ofnephrogenic fibrosing dermopathy. *Am J Kidney Dis* 46: 763–765, 2005

Cowper SE (online 14 June 2007) Nephrogenic fibrosing dermopathy [<http://www.icnfd.org/>] (Accessed 24 August 2007)

References

Cowper SE. Nephrogenic systemic fibrosis: a review and exploration of the role of gadolinium. *Adv Dermatol.* 2007;23:131-54.

Cowper SE & Bucala R: Nephrogenic fibrosing dermopathy: Suspect identified, motive unclear. *Am J Dermatopathol* 25: 358, 2003

Cowper SE, Kuo PH, Bucala R. Nephrogenic systemic fibrosis and gadolinium exposure: association and lessons for idiopathic fibrosing disorders. *Arthritis Rheum.* Oct 2007;56(10):3173-5.

Cowper SE, Robin HS, Steinberg SM, Su LD, Gupta S, LeBoit PE. Scleromyxoedema-like cutaneous diseases in renal-dialysis patients. *Lancet.* Sep 16 2000;356(9234):1000-1.

Cowper SE, Robin HS, Steinberg SM, Su LD, Gupta S, LeBoit PE: Scleromyxoedema-like cutaneous diseases in renal-dialysis patients. *Adv Dermatol.* 2006;83:111-62

Cowper SE, Su LD, Bhawan J, Robin HS, LeBoit PE. Nephrogenic fibrosing dermopathy. *Am J Dermatopathol.* Oct 2001;23(5):383-93.

Daram SR et al. (2005) Nephrogenic fibrosing dermopathy/nephrogenic systemic fibrosis: report of a new case with literature review. *Am J Kidney Dis* 46: 754–759

Dawn G, Holmes SC. Scleromyxoedema-like eruption following haemodialysis or nephrogenic fibrosing dermopathy? *Br J Dermatol.* 2004;150:167–68..

References

- De Marchi S, Cecchin E, Falleti E, Giacomello R, Stel G, Sepiacci G, Bortolotti N, Zanello F, Gonano F, Bartoli E:** Long-term effects of erythropoietin therapy on fistula stenosis and plasma concentrations of PDGF and MCP-1 in hemodialysis patients. *J Am Soc Nephrol* 8: 1147–1156, 1997
- Deo A, Fogel M, Cowper SE.** Nephrogenic systemic fibrosis: a population study examining the relationship of disease development to gadolinium exposure. *Clin J Am Soc Nephrol*. Mar 2007;2(2):264-7.
- Desai A, Zhao Y, Lankford HA, Warren JS:** Nitric oxide suppresses EPO-induced monocyte chemoattractant protein-1 in endothelial cells: Implications for atherogenesis in chronic renal disease. *Lab Invest* 86: 369–379, 2006
- Dou L, Bertrand E, Cerini C, Faure V, Sampol J, Vanholder R, Berland Y, Brunet P:** The uremic solutes p-cresol and indoxyl sulfate inhibit endothelial proliferation and wound repair. *Kidney Int* 65: 442–451, 2004
- Edsall LC, English JC 3rd, Teague MW, Patterson JW:** Calciphylaxis and metastatic calcification associated with nephrogenic fibrosing dermopathy. *J Cutan Pathol* 31: 247–253, 2004
- Edward M, Fitzgerald L, Thind C, Leman J, Burden AD.** Cutaneous mucinosis associated with dermatomyositis and nephrogenic fibrosing dermopathy: fibroblast hyaluronan synthesis and the effect of patient serum. *Br J Dermatol*. Mar 2007;156(3):473-9.

References

Endre ZH. Nephrogenic systemic fibrosis: is any contrast safe in renal failure?. *Intern Med J.* Jul 2007;37(7):429-31.

Evenepoel P, Zeegers M, Segaert S, Claes K, Kuypers D, Maes B, et al. Nephrogenic fibrosing dermopathy: a novel, disabling disorder in patients with renal failure. *Nephrol Dial Transplant.* 2004;19:469–73.

Fathke C, Wilson L, Hutter J, Kapoor V, Smith A, Hocking A, Isik F: Contribution of bone marrow-derived cells to skin: Collagen deposition and wound repair. *Stem Cells* 22: 812–822, 2004

Fazeli A, Lio PA, Liu V. Nephrogenic fibrosing dermopathy: are ACE inhibitors the missing link?. *Arch Dermatol.* Nov 2004;140(11):1401.

Galeano M, Altavilla D, Bitto A, Minutoli L, Calo M, Lo Cascio P, Polito F, Giugliano G, Squadrito G, Mioni C, Giuliani D, Venuti FS, Squadrito F: Recombinant human erythropoietin improves angiogenesis and wound healing in experimental burn wounds. *Crit Care Med* 34: 1139–1146, 2006

George J, Goldstein E, Abashidze A, Wexler D, Hamed S, Shmilovich H, Deutsch V, Miller H, Keren G, Roth A: Erythropoietin promotes endothelial progenitor cell proliferative and adhesive properties in a PI3-kinase-dependent manner. *Cardiovasc Res* 68: 299–306, 2005

Gibson SE, Farver CF, Prayson RA. Multiorgan involvement in nephrogenic fibrosing dermopathy: an autopsy case and review of the literature. *Arch Pathol Lab Med.* Feb 2006;130(2):209-12.

References

Giersig C. [Nephrogenic systemic fibrosis as an adverse drug reaction of gadolinium-based contrast media for magnetic resonance imaging]. *Radiologe*. Sep 2007;47(9):794-9.

Glaich AS, Martinelli PT, Markus RF, Hsu S. Generalized elastolysis following nephrogenic fibrosing dermopathy. *J Am Acad Dermatol*. Jul 2005;53(1):174-6.

Goddard DS, Magee CC, Lazar AJ, Miller DM. Nephrogenic fibrosing dermopathy with recurrence after allograft failure. *J Am Acad Dermatol*. 2007 May;56(5 Suppl):S109-11.

Goveia M, Chan BP, Patel PR. Evaluating the role of recombinant erythropoietin in nephrogenic systemic fibrosis. *J Am Acad Dermatol*. Oct 2007;57(4):725-7.

Gremmels JM & Kirk GA: Two patients with abnormal skeletal muscle uptake of Tc-99m hydroxymethylene diphosphonate following liver transplant: Nephrogenic fibrosing dermopathy and graft vs host disease. *Clin Nucl Med* 29: 694–697, 2004

Grobner T. Gadolinium--a specific trigger for the development of nephrogenic fibrosing dermopathy and nephrogenic systemic fibrosis?. *Nephrol Dial Transplant*. Apr 2006;21(4):1104-8.

Grobner T & Prischl FC. Gadolinium and nephrogenic systemic fibrosis. *Kidney Int*. Aug 2007;72(3):260-4.

References

- Hancox JG, Mengesha YM, Sangueza OP, Yosipovitch G.** Nephrogenic fibrosing dermopathy after five days of hemodialysis. *J Drugs Dermatol.* Oct 2003;2(5):550-3.
- Haroon ZA, Amin K, Jiang X, Arcasoy MO:** A novel role for erythropoietin during fibrininduced wound-healing response. *Am J Pathol* 163: 993–1000, 2003
- Hauser C, Kaya G, Chizzolini C.** Nephrogenic fibrosing dermopathy in a renal transplant recipient with tubulointerstitial nephritis and uveitis. *Dermatology.* 2004;209(1):50-2.
- Hedley AJ, Molan MP, Hare DL, Anavekar NS, Ierino FL.** Nephrogenic systemic fibrosis associated with gadolinium-containing contrast media administration in patients with reduced glomerular filtration rate. *Australas Radiol.* Jun 2007;51(3):300.
- Hedley AJ, Molan MP, Hare DL, Anavekar NS, Ierino FL.** Nephrogenic systemic fibrosis associated with gadolinium-containing contrast media administration in patients with reduced glomerular filtration rate. *Nephrology (Carlton).* Feb 2007;12(1):111.
- Heeschen C, Aicher A, Lehmann R, Fichtlscherer S, Vasa M, Urbich C, Mildner-Rihm C, Martin H, Zeiher AM, Dimmeler S:** Erythropoietin is a potent physiologic stimulus for endothelial progenitor cell mobilization. *Blood* 102: 1340–1346, 2003

References

Hellman RN. Erythropoietin, gadolinium, and nephrogenic fibrosing dermopathy. *Ann Intern Med.* Feb 6 2007;146(3):229-30; author reply 230.

Hershko K, Hull C, Ettefagh L, Nedorost S, Dyson S, Horn T, Gilliam AC: A variant of nephrogenic fibrosing dermopathy with osteoclast- like giant cells: A syndrome of dysregulated matrix remodeling? *J Cutan Pathol* 31: 262–265, 2004

High WA, Ayers RA, Chandler J, Zito G, Cowper SE: Gadolinium is detectable within the tissue of patients with nephrogenic systemic fibrosis. *J Am Acad Dermatol* 56: 21– 26, 2007

High WA.: Gadolinium is quantifiable within the tissue of patients with nephrogenic systemic fibrosis. *J Am Acad Dermatol.* Apr 2007;56(4):710-2.

Hubbard V, Davenport A, Jarmulowicz M, Rustin M. Scleromyxoedema-like changes in four renal dialysis patients. *Br J Dermatol.* Mar 2003;148(3):563-8.

Idee JM, Port M, Raynal I, Schaefer M, Le Greneur S, Corot C: Clinical and biological consequences of transmetallation induced by contrast agents for magnetic resonance imaging: A review. *Fundam Clin Pharmacol* 20: 563–576, 2006

Introcaso CE, Hivnor C, Cowper S, Werth VP. Nephrogenic fibrosing dermopathy/nephrogenic systemic fibrosis: a case series of nine patients and review of the literature. *Int J Dermatol.* May 2007;46(5):447-52.

References

Iredale JP: Models of liver fibrosis: Exploring the dynamic nature of inflammation and repair in a solid organ. *J Clin Invest* 117: 539– 548, 2007

Jamboti J. Strong association between the use of gadolinium-based contrast agents with nephrogenic fibrosing dermopathy/nephrogenic systemic fibrosis. *Intern Med J.* Jul 2007;37(7):508-9; author reply 509.

Jan F, Segal JM, Dyer J, LeBoit P, Siegfried E, Frieden IJ. Nephrogenic fibrosing dermopathy: two pediatric cases. *J Pediatr.* Nov 2003;143(5):678-81.

Jiménez SA, Artlett CM, Sandorfi N, Derk C, Latinis K, Sawaya H,; Dialysis-associated systemic fibrosis (nephrogenic fibrosing dermopathy): study of inflammatory cells and transforming growth factor beta1 expression in affected skin. *Arthritis Rheum.* Aug 2004;50(8):2660-6.

Joffe P, Thomsen HS, Meusel M: Pharmacokinetics of gadodiamide injection in patients with severe renal insufficiency and patients undergoing hemodialysis or continuous ambulatory peritoneal dialysis. *Acad Radiol* 5: 491–502, 1998

Johnson DW, Saunders HJ, Johnson FJ, Huq SO, Field MJ, Pollock CA: Fibrogenic effects of cyclosporin A on the tubulointerstitium: Role of cytokines and growth factors. *Exp Nephrol* 7: 470–478, 1999

References

- Kafi R, Fisher GJ, Quan T, Shao Y, Wang R, Voorhees JJ, .:** UV-A1 phototherapy improves nephrogenic fibrosing dermopathy. *Arch Dermatol*. Nov 2004;140(11):1322-4.
- Kahraman S, Yilmaz R, Kirkpantur A, Genctoy G, Arici M, Altun B, Erdem Y, Yasavul U, Turgan C:** Impact of rHuEPO therapy initiation on soluble adhesion molecule levels in haemodialysis patients. *Nephrology (Carlton)*10: 264–269, 2005
- Kanal E, Broome DR, Martin DR, Thomsen HS.** Response to the FDA's May 23, 2007, Nephrogenic Systemic Fibrosis Update. *Radiology*. Sep 12 2007
- Karlik SJ.** Gadodiamide-associated nephrogenic systemic fibrosis. *AJR Am J Roentgenol*. Jun 2007;188(6):W584; author reply W585.
- Kaysen GA & Eiserich JP:** Characteristics and effects of inflammation in end-stage renal disease. *Semin Dial* 16: 438–446, 2003
- Keyrouz S & Rudnicki SA.** Neuromuscular involvement in nephrogenic systemic fibrosis. *J Clin Neuromuscul Dis*. Dec 2007;9(2):297-302.
- Khurram M, Skov L, Rossen K, Thomsen HS, Marckmann P.** Nephrogenic systemic fibrosis: A serious iatrogenic disease of renal failure patients. *Scand J Urol Nephrol*. Oct 12 2007;1-2.
- Kintossou R, D'Incan M, Chauveau D, Bens G, Franck F, Dauplat MM:.** [Nephrogenic fibrosing dermopathy treated with extracorporeal photopheresis: role of gadolinium?]. *Ann Dermatol Venereol*. Aug-Sep 2007;134(8-9):667-71.

References

- Kirchin MA & Runge VM:** Contrast agents for magnetic resonance imaging: Safety update. *Top Magn Reson Imaging* 14: 426–435, 2003 27.
- VanWagoner M, O'Toole M, Worah D, Leese PT, Quay SC: A phase I clinical trial with gadodiamide injection, a nonionic magnetic resonance imaging enhancement agent. *Invest Radiol* 26: 980–986, 1991
- Krous HF, Breisch E, Chadwick AE, Pinckney L, Malicki DM, Benador N.** Nephrogenic systemic fibrosis with multiorgan involvement in a teenage male after lymphoma, Ewing's sarcoma, end-stage renal disease, and hemodialysis. *Pediatr Dev Pathol.* Sep-Oct 2007;10(5):395-402.
- Kucher C, Xu X, Pasha T, Elenitsas R.** Histopathologic comparison of nephrogenic fibrosing dermopathy and scleromyxedema. *J Cutan Pathol.* Aug 2005;32(7):484-90.
- Kucher C, Steere J, Elenitsas R, Siegel DL, Xu X.** Nephrogenic fibrosing dermopathy/nephrogenic systemic fibrosis with diaphragmatic involvement in a patient with respiratory failure. *J Am Acad Dermatol.* Feb 2006;54(2 Suppl):S31-4.
- Kuwana M, Okazaki Y, Kodama H, Izumi K, Yasuoka H, Ogawa Y, Kawakami Y, Ikeda Y:** Human circulating CD14⁺ monocytes as a source of progenitors that exhibit mesenchymal cell differentiation. *J Leukoc Biol* 74: 833–845, 2003
- Laplane P, Raymond MA, Gagnon G, Vigneault N, Sasseville AM, Langelier Y, Bernard M, Raymond Y, Hebert MJ:** Novel fibrogenic

References

pathways are activated in response to endothelial apoptosis: Implications in the pathophysiology of systemic sclerosis. *J Immunol* 174: 5740–5749, 2005

Lauenstein TC, Salman K, Morreira R, Tata S, Tudorascu D, Baramidze G,. Nephrogenic systemic fibrosis: center case review. *J Magn Reson Imaging*. Nov 2007;26(5):1198-203.

Leiner T, Herborn CU, Goyen M. Nephrogenic systemic fibrosis is not exclusively associated with gadodiamide. *Eur Radiol*. Aug 2007;17(8):1921-3.

Levine JM, Taylor RA, Elman LB, Bird SJ, Lavi E, Stolzenberg ED,. Involvement of skeletal muscle in dialysis-associated systemic fibrosis (nephrogenic fibrosing dermopathy). *Muscle Nerve*. Nov 2004;30(5):569-77.

Lim YL, Lee HY, Low SC, Chan LP, Goh NS, Pang SM. Possible role of gadolinium in nephrogenic systemic fibrosis: report of two cases and review of the literature. *Clin Exp Dermatol*. 2007 Jul;32(4):353-8.

Lin SP & Brown JJ. MR contrast agents: physical and pharmacologic basics. *J Magn Reson Imaging*. May 2007;25(5):884-99.

Liu J & Finkel T: Stem cell aging: What bleach can teach. *Nat Med* 12: 383–384, 2006

Lauchli S, Zortea-Cafilisch C, Nestle FO, Burg G, Kempf W. Nephrogenic fibrosing dermopathy treated with extracorporeal photopheresis. *Dermatology*. 2004;208(3):278-80.

References

- Mackay-Wiggan JM, Cohen DJ, Hardy MA, Knobler EH, Grossman ME.** Nephrogenic fibrosing dermopathy (scleromyxedema-like illness of renal disease). *J Am Acad Dermatol*. Jan 2003;48(1):55-60.
- Mann JS:** Stability of gadolinium complexes in vitro and in vivo. *J Comput Assist Tomogr* 17[Suppl 1]: S19–S23, 1993
- Marckmann P, Skov L, Rossen K, Dupont A, Damholt MB, Heaf JG,.** Nephrogenic systemic fibrosis: suspected causative role of gadodiamide used for contrast-enhanced magnetic resonance imaging. *J Am Soc Nephrol*. Sep 2006;17(9):2359-62.
- Marckmann P, Skov L, Rossen K, Heaf JG, Thomsen HS:** Case-control study of gadodiamide- related nephrogenic systemic fibrosis. *Nephrol Dial Transplant* 17: 2359– 2362, 2007
- Markus JS, James AJ, Nunez-Gussman JK, Sheehan AM, Fegan L, Hsu S.** Nephrogenic fibrosing dermopathy. *J Am Acad Dermatol*. Jan 2005;52(1):166-7.
- McMorrow T, Gaffney MM, Slattery C, Campbell E, Ryan MP:** Cyclosporine A induced epithelial-mesenchymal transition in human renal proximal tubular epithelial cells. *Nephrol Dial Transplant* 20: 2215–2225, 2005
- McNeill AM & Barr RJ.** Scleromyxedema-like fibromucinosi s in a patient undergoing hemodialysis. *Int J Dermatol*. Jun 2002;41(6):364-7.

References

Mendichovszky IA, Marks SD, Simcock CM, Olsen OE. Gadolinium and nephrogenic systemic fibrosis: time to tighten practice. *Pediatr Radiol*. Oct 18 2007

Mendoza F. :NSF , New insights and literature review . *Semin Arthritis Rheum* 12:325-335,2007

Mendoza F, Artlett C, Sandorfi N, Latinis K, Piera-Velazquez S, Jimenez S: Description of 12 cases of nephrogenic fibrosing dermopathy and review of the literature. *Semin Arthritis Rheum* 35: 238–249, 2007

Meneghin A & Hogaboam CM: Infectious disease, the innate immune response, and fibrosis. *J Clin Invest* 117: 530–538, 2007

Morcos SK. Nephrogenic systemic fibrosis following the administration of extracellular gadolinium based contrast agents: is the stability of the contrast agent molecule an important factor in the pathogenesis of this condition?. *Br J Radiol*. Feb 2007;80(950):73-6.

Naylor E, Hu S, Robinson-Bostom L. Nephrogenic systemic fibrosis with septal panniculitis mimicking erythema nodosum. *J Am Acad Dermatol*. Jan 2008;58(1):149-50.

Nephrogenic fibrosing dermopathy associated with exposure to gadolinium-containing contrast agents—St. Louis, Missouri, 2002–2006. *MMWR Morb Mortal Wkly Rep* 56: 137–141, 2007

Ng YY, Lee RC, Shen SH, Kirk G. Gadolinium-associated nephrogenic systemic fibrosis: double dose, not single dose. *AJR Am J Roentgenol*. 2007 Jun;188(6):W582; author reply W583.

References

- Obermoser G, Emberger M, Wieser M, Zelger B.** Nephrogenic fibrosing dermopathy in two patients with systemic lupus erythematosus. *Lupus*. 2004;13(8):609-12.
- Ogawa M, LaRue AC, Drake CJ:** Hematopoietic origin of fibroblasts/myofibroblasts: Its pathophysiologic implications. *Blood* 108: 2893–2896, 2006
- Olakanmi O, Rasmussen GT, Lewis TS, Stokes JB, Kemp JD, Britigan BE:** Multivalent metal-induced iron acquisition from transferrin and lactoferrin by myeloid cells. *J Immunol* 169: 2076–2084, 2002
- Olakanmi O, Stokes JB, Britigan BE:** Gallium- inducible transferrin-independent iron acquisition is a property of many cell types: Possible role of alterations in the plasma membrane. *J Investig Med* 53: 143–153, 2005
- Olakanmi O, Stokes JB, Pathan S, Britigan BE:** Polyvalent cationic metals induce the rate of transferrin-independent iron acquisition by HL-60 cells. *J Biol Chem* 272: 2599– 2606, 1997
- Olson DP, Knight MC, Martin RP, Schipani E, Divieti P, Bringhurst FR, Milner LA, Kronenberg HM, Scadden DT:** Osteoblastic cells regulate the haematopoietic stem cell niche. *Nature* 425: 841–846, 2003
- Ortonne N, Lipsker D, Chantrel F, Boehm N, Grosshans E, Cribier B.** Presence of CD45RO⁺ CD34⁺ cells with collagen synthesis activity in

References

nephrogenic fibrosing dermopathy: a new pathogenic hypothesis. *Br J Dermatol*. May 2004;150(5):1050-2.

Othersen JB, Maize JC, Woolson RF, Budisavljevic MN. Nephrogenic systemic fibrosis after exposure to gadolinium in patients with renal failure. *Nephrol Dial Transplant*. Nov 2007;22(11):3179-85.

Panda S, Bandyopadhyay D, Tarafder A. Nephrogenic fibrosing dermopathy: a series in a non-Western population. *J Am Acad Dermatol*. Jan 2006;54(1):155-9.

Parsons AC, Yosipovitch G, Sheehan DJ, Sangüeza OP, Greenberg CS, Sane DC. Transglutaminases: the missing link in nephrogenic systemic fibrosis. *Am J Dermatopathol*. Oct 2007;29(5):433-6.

Partain CL. On the potential causal relationship between gadolinium-containing MRI agents and nephrogenic systemic fibrosis. *J Magn Reson Imaging*. May 2007;25(5):879-80.

Pedersen M. Safety update on the possible causal relationship between gadolinium-containing MRI agents and nephrogenic systemic fibrosis. *J Magn Reson Imaging*. 2007 May;25(5):881-3.

Perazella MA, Poggioli G, Galaria N, Nephrogenic fibrosing dermopathy: an unusual skin condition associated with kidney disease. *Semin Dial* 16: 276–280, 2003

Perazella MA : Nephrogenic Systemic Fibrosis, Kidney Disease, and Gadolinium: Is There a Link? *Clin J Am Soc Nephrol* 2: 200–202, 2007.

References

- Poggio ED, Wang X, Greene T, Van Lente F, Hall PM:** Performance of the modification of diet in renal disease and Cockcroft-Gault equations in the estimation of GFR in health and in chronic kidney disease. *J Am Soc*
- Pryor JG, Poggioli G, Galaria N, Gust A, Robison J, Samie F,:** Nephrogenic systemic fibrosis: a clinicopathologic study of six cases. *J Am Acad Dermatol*. Jul 2007;57(1):105-11.
- Pryor JG & Scott GA.** Nephrogenic systemic fibrosis: a clinicopathologic study of 6 cases. *J Am Acad Dermatol*. Nov 2007;57(5):902-3.
- Pupim LB, Caglar K, Hakim RM, Shyr Y, Ikizler TA:** Uremic malnutrition is a predictor of death independent of inflammatory status. *Kidney Int* 66: 2054–2060, 2004
- Pupim LB, Evanson JA, Hakim RM, Ikizler TA:** The extent of uremic malnutrition at the time of initiation of maintenance hemodialysis is associated with subsequent hospitalization. *J Ren Nutr* 13: 259–266, 2003
- Puttagunta NR, Gibby WA, Puttagunta VL:** Comparative transmetallation kinetics and thermodynamic stability of gadolinium-DTPA bis-glucosamide and other magnetic resonance imaging contrast media. *Invest Radiol* 31: 619–624, 1996

References

Puttagunta NR, Gibby WA, Smith GT: Human in vivo comparative study of zinc and copper transmetallation after administration of magnetic resonance imaging contrast agents. *Invest Radiol* 31: 739–742, 1996

Richmond H, Zwerner J, Kim Y, Fiorentino D. Nephrogenic systemic fibrosis: relationship to gadolinium and response to photopheresis. *Arch Dermatol.* Aug 2007;143(8):1025-30.

Rongioletti F, Rampini P, Parodi A, Rebora A. Papular mucinosis associated with generalized morphea. *Br J Dermatol.* Nov 1999;141(5):905-8.

Ruiz-Genao DP, Pascual-Lopez MP, Fraga S, Aragues M, Garcia-Diez A: Osseous metaplasia in the setting of nephrogenic fibrosing dermopathy. *J Cutan Pathol* 32: 172– 175, 2005

Saab G & Abu-Alfa A. Are patients with moderate renal failure at risk for developing nephrogenic systemic fibrosis?. *Radiology.* Sep 2007;244(3):930-1; author reply 931-2.

Saab G & Abu-Alfa A. Will dialysis prevent the development of nephrogenic systemic fibrosis after gadolinium-based contrast administration?. *AJR Am J Roentgenol.* Sep 2007;189(3):W169.

Saab G & Cheng S. Nephrogenic systemic fibrosis: a nephrologist's perspective. *Hemodial Int.* Oct 2007;11 Suppl 3:S2-6.

Saab G. Epoetin and nephrogenic systemic fibrosis. *J Am Acad Dermatol.* Jan 2008;58(1):174-5.

References

- Sadowski EA, Bennett LK, Chan MR, Wentland AL, Garrett AL, Garrett RW, Djamali A:** Nephrogenic systemic fibrosis: Risk factors and incidence estimation. *Radiology* 243: 148–157, 2007
- Saenz A, Mandal R, Kradin R, Hedley-Whyte ET.** Nephrogenic fibrosing dermopathy with involvement of the dura mater. *Virchows Arch.* Sep 2006;449(3):389-91.
- Sanchez-Ross M, Snyder R, Colome-Grimmer MI, Blumberg M, Huttenbach Y, Raimer S.** Nephrogenic fibrosing dermopathy in a patient with systemic lupus erythematosus and acute lupus nephritis. *Pediatr Dermatol.* Sep-Oct 2007;24(5):E36-9.
- Sayan H, Ozacmak VH, Guven A, Aktas RG, Ozacmak ID:** Erythropoietin stimulates wound healing and angiogenesis in mice. *J Invest Surg* 19: 163–173, 2006
- Scalera F, Kielstein JT, Martens-Lobenhoffer J, Postel SC, Tager M, Bode-Boger SM:** Erythropoietin increases asymmetric dimethylarginine in endothelial cells: Role of dimethylarginine dimethylaminohydrolase.
- Scheinfeld N.** Nephrogenic fibrosing dermopathy: a comprehensive review for the dermatologist. *Am J Clin Dermatol.* 2006;7(4):237-47.
- Scheinfeld N, Budde K, Postel SC,** NFD new insights. *J Clin Dermatol.* 2007;(2):199-231.

References

Scheinfeld NS, Shawn Cowper, Carrie L. et al., Nephrogenic Fibrosing Dermopathy. *Am J Clin Dermatol.* Jan 2008;(5):325-37.

Schmook T, Budde K, Ulrich C, Neumayer HH, Fritsche L, Stockfleth E. Successful treatment of nephrogenic fibrosing dermopathy in a kidney transplant recipient with photodynamic therapy. *Nephrol Dial Transplant.* Jan 2005;20(1):220-2.

Shah SV & Alam MG: Role of iron in atherosclerosis. *Am J Kidney Dis* 41: S80–S83, 2003

Shellock FG & Kanal E: Safety of magnetic resonance imaging contrast agents. *J Magn Reson Imaging* 10: 477–484, 1999

Sigounas G, Steiner M, Anagnostou A: Synergism of hemopoietic growth factors on endothelial cell proliferation. *Angiology* 48: 141–147, 1997

Socolovsky M: Molecular insights into stress erythropoiesis. *Curr Opin Hematol* 14: 215– 224, 2007

Solomon GJ, Rosen PP, Wu E. The role of gadolinium in triggering nephrogenic systemic fibrosis/nephrogenic fibrosing dermopathy. *Arch Pathol Lab Med.* Oct 2007;131(10):1515-6.

Solomon GJ, Wu E, Rosen PP. Nephrogenic systemic fibrosis mimicking inflammatory breast carcinoma. *Arch Pathol Lab Med.* Jan 2007;131(1):145-8.

References

Spencer AJ, Wilson SA, Batchelor J, Reid A, Rees J, Harpur E: Gadolinium chloride toxicity in the rat. *Toxicol Pathol* 25: 245–255,1997

Stohlawetz PJ, Dzirlo L, Hergovich N, Lackner E, Mensik C, Eichler HG, Kabrna E, Geissler K, Jilma B: Effects of erythropoietin on platelet reactivity and thrombopoiesis in humans. *Blood* 95: 2983–2989, 2000

Streams BN, Liu V, Liégeois N, Moschella SM. Clinical and pathologic features of nephrogenic fibrosing dermopathy: a report of two cases. *J Am Acad Dermatol*. Jan 2003;48(1):42-7.

Swaminathan S, Ahmed I, McCarthy JT,Albright RC, Pittelkow MR, Caplice NM, Griffin MD, Leung N: Nephrogenic fibrosing dermopathy and high-dose erythropoietin therapy. *Ann Intern Med* 145: 234– 235, 2006

Swaminathan S & Leung N: Nephrogenic fibrosing dermopathy: Lessons from the past. *Int J Dermatol* 45: 639–641, 2006

Swaminathan S, Horn TD, Pellowski D, Abul- Ezz S, Bornhorst JA, Viswamitra S, Shah SV: Nephrogenic systemic fibrosis, gadolinium, and iron mobilization. *N Engl J Med* 357: 720–722, 2007

Swaminathan S & Shah SV. New insights into nephrogenic systemic fibrosis. *J Am Soc Nephrol*. Oct 2007;18(10):2636-43.

References

Swartz RD, Crofford LJ, Phan SH, Ike RW, Su LD. Nephrogenic fibrosing dermopathy: a novel cutaneous fibrosing disorder in patients with renal failure. *Am J Med.* May 2003;114(7):563-72.

Thakral C & Abraham JL. Automated Scanning Electron Microscopy and X-Ray Microanalysis for in situ Quantification of Gadolinium Deposits in Skin. *J Electron Microsc (Tokyo).* Oct 2007;56(5):181-7.

Thakral C, Alhariri J, Abraham JL. Long-term retention of gadolinium in tissues from nephrogenic systemic fibrosis patient after multiple gadolinium-enhanced MRI scans: case report and implications. *Contrast Media Mol Imaging.* Jul 2007;2(4):199-205.

Thomsen HS: Nephrogenic systemic fibrosis: A serious late adverse reaction to gadodiamide. *Eur Radiol* 16: 2619–2621, 2006

Thomsen HS. ESUR guideline: gadolinium-based contrast media and nephrogenic systemic fibrosis. *Eur Radiol.* Oct 2007;17(10):2692-6.

Thomsen HS & Morcos SK. Nephrogenic systemic fibrosis and nonionic linear chelates. *AJR Am J Roentgenol.* Jun 2007;188(6):W580; author reply W581.

Thomsen HS, Marckmann P, Logager VB. Nephrogenic systemic fibrosis (NSF): a late adverse reaction to some of the gadolinium based contrast agents. *Cancer Imaging.* 2007;7:130-7.

Thomsen HS, Morcos SK, Dawson P: Is there a causal relation between the administration of gadolinium based contrast media and the

References

development of nephrogenic systemic fibrosis (NSF)? *Clin Radiol* 61: 905–906, 2006

Ting WW, Stone MS, Madison KC, Kurtz K: Nephrogenic fibrosing dermatopathy with systemic involvement. *Arch Dermatol* 139:903–906, 2003

Todd DJ, Kagan A, Chibnik LB, Kay J. Cutaneous changes of nephrogenic systemic fibrosis: predictor of early mortality and association with gadolinium exposure. *Arthritis Rheum.* Oct 2007;56(10):3433-41.

Tsai CW, Chao CC, Wu VC, Hsiao CH, Chen YM. Nephrogenic fibrosing dermatopathy in a peritoneal dialysis patient. *Kidney Int.* Nov 2007;72(10):1294.

Wahba IM, White K, Meyer M, Simpson EL. The case for ultraviolet light therapy in nephrogenic fibrosing dermatopathy--report of two cases and review of the literature. *Nephrol Dial Transplant.* Feb 2007;22(2):631-6

Wahba IM, Simpson EL, White K. Gadolinium is not the only trigger for nephrogenic systemic fibrosis: insights from two cases and review of the recent literature. *Am J Transplant.* Oct 2007;7(10):2425-32.

.

References

Weiss A S, Wojakowski W, Majka M, A case of nephrogenic fibrosing dermopathy/nephrogenic systemic fibrosis .*Nat Clin Pract Nephrol* 3: 111–115, 2007

Widmark JM. Imaging-related medications: a class overview. *Proc (Bayl Univ Med Cent)*. Oct 2007;20(4):408-17.

Wojakowski W, Tendera M, Michalowska A, Majka M, Kucia M, Maslankiewicz K, Wyderka R, Ochala A, Ratajczak MZ: Mobilization of CD34/CXCR4_, CD34/CD117_, c-met_ stem cells, and mononuclear cells expressing early cardiac, muscle, and endothelial markers into peripheral blood in patients with acute myocardial infarction. *Circulation* 110: 3213–3220, 2004

Wynn TA: Common and unique mechanisms regulate fibrosis in various fibroproliferative diseases. *J Clin Invest* 117: 524–529, 2007

Yerram P, Saab G, Karuparthi PR, Hayden MR, Khanna R. Nephrogenic systemic fibrosis: a mysterious disease in patients with renal failure--role of gadolinium-based contrast media in causation and the beneficial effect of intravenous sodium thiosulfate. *Clin J Am Soc Nephrol*. 2007;2(2):258-63.