Chapter 25
Parapsoriasis and Pityriasis Lichenoides

Gary S. Wood, Chung-Hong Hu, & Rosemarie Liu

REFERENCES

1. Brocq L: *Les Parapsoriasis, par L. Brocq*. Paris, Masson, 1902
2. Lambert WC, Everett MA: The nosology of parapsoriasis. *J Am Acad Dermatol* ***5***(4):373-395, 1981
3. Neisser A: Zur Frage der lichenoiden eruptionen. *Verh Dtsch Dermatol Ges* ***4***:4495, 1894
4. Jadassohn J: Uber ein eigenartiges psoriasiformes und lichenoides Exanthem. *Verh Dtsch Dermatol Ges* ***4***:524, 1894
5. Juliusberg F: Uber die pityriasis lichenoides chronica (Psoriasiform lichenoides Exanthem). *Arch Dermatol Syphilol* ***50***:359, 1899
6. Mucha V: Uber einen der Parakeratosis variegata (Unna) bzw, Pityriasis lichenoides chronica nahestehenden eigentumlichen Fall. *Arch Dermatol Syphilol* ***123***:586, 1916
7. Habermann R: Uber die akut verlaufende, nekrotisierende Unterart der Pityriasis lichenoides (Pityriasis lichenoides et varioliformis acuta). *Dermatol Ztschr* ***45***:42, 1925
8. Cerroni L: Lymphomatoid papulosis, pityriasis lichenoides et varioliformis acuta, and anaplastic large-cell (Ki-1+) lymphoma. *J Am Acad Dermatol* ***37***(2 Pt 1):287, 1997
9. Rogers M: Pityriasis lichenoides and lymphomatoid papulosis. *Semin Dermatol* ***11***(1):73-79, 1992
10. Black MM: Lymphomatoid papulosis and pityriasis lichenoides: Are they related? *Br J Dermatol* ***106***(6):717-721, 1982
11. Bos J, ed.: *Skin Immune System*. Boca Raton, FL, CRC Press, 1990
12. Veelken H, Wood GS, Sklar J: Molecular staging of cutaneous T-cell lymphoma: Evidence for systemic involvement in early disease. *J Invest Dermatol* ***104***(6):889-894, 1995
13. Veelken H, Sklar JL, Wood GS: Detection of low-level tumor cells in allergic contact dermatitis induced by mechlorethamine in patients with mycosis fungoides. *J Invest Dermatol* ***106***(4):685-688, 1996
14. Wood GS: Analysis of clonality in cutaneous T cell lymphoma and associated diseases. *Ann N Y Acad Sci* ***941***:26-30, 2001
15. Karenko L et al: Chromosomal abnormalities in cutaneous T-cell lymphoma and in its premalignant conditions as detected by G-banding and interphase cytogenetic methods. *J Invest Dermatol* ***108***(1):22-29, 1997
16. Kim BK et al: p53 gene mutations in cutaneous T-cell lymphoma. *J Cutan Pathol* ***24***:107, 1997
17. Li G et al: Overexpression of p53 protein in cutaneous T cell lymphoma: Relationship to large cell transformation and disease progression. *J Invest Dermatol* ***110***(5):767-770, 1998
18. McGregor JM: p53 gene mutations in cutaneous T-cell lymphoma. *J Invest Dermatol* ***106***:855, 1996
19. Fearon ER, Vogelstein B: A genetic model for colorectal tumorigenesis. *Cell* ***61***(5):759-767, 1990
20. Burg G et al: From inflammation to neoplasia: New concepts in the pathogenesis of cutaneous lymphomas. *Recent Results Cancer Res* ***160***:271-280, 2002
21. Siddiqui J HD, Misra M, Wood GS: Clonal dermatitis: A potential precursor of CTCL with varied clinical manifestations. *J Invest Dermatol* ***108***:584, 1997
22. Kikuchi A et al: Parapsoriasis en plaques: Its potential for progression to malignant lymphoma. *J Am Acad Dermatol* ***29***(3):419-422, 1993
23. Zelickson BD et al: T-cell receptor gene rearrangement analysis: Cutaneous T cell lymphoma, peripheral T cell lymphoma, and premalignant and benign cutaneous lymphoproliferative disorders. *J Am Acad Dermatol* ***25***(5 Pt 1):787-796, 1991
24. Menni S et al: Parapsoriasis in two children: A clinical, immunophenotypic, and immunogenotypic study. *Pediatr Dermatol* ***11***(2):151-155, 1994
25. Bergman R: How useful are T-cell receptor gene rearrangement studies as an adjunct to the histopathologic diagnosis of mycosis fungoides? *Am J Dermatopathol* ***21***(5):498-502, 1999

26. Simon M et al: Large plaque parapsoriasis: Clinical and genotypic correlations. *J Cutan Pathol* ***27***(2):57-60, 2000

27. Muche JM et al: Demonstration of frequent occurrence of clonal T cells in the peripheral blood of patients with primary cutaneous T-cell lymphoma. *Blood* ***90***(4):1636-1642, 1997

28. Klemke CD et al: Clonal T cell receptor gamma-chain gene rearrangement by PCR-based GeneScan analysis in the skin and blood of patients with parapsoriasis and early-stage mycosis fungoides. *J Pathol* ***197***(3):348-354, 2002

29. Haeffner AC et al: Differentiation and clonality of lesional lymphocytes in small plaque parapsoriasis. *Arch Dermatol* ***131***(3):321-324, 1995

30. Weiss LM WG et al: Clonal T cell populations in pityriasis lichenoides et varioliformis acuta (Mucha-Habermann Disease). *Am J Pathol* ***126***:417-421, 1987

31. Shieh S, Mikkola DL, Wood GS: Differentiation and clonality of lesional lymphocytes in pityriasis lichenoides chronica. *Arch Dermatol* ***137***(3):305-308, 2001

32. Dereure O, Levi E, Kadin ME: T-Cell clonality in pityriasis lichenoides et varioliformis acuta: A heteroduplex analysis of 20 cases. *Arch Dermatol* ***136***(12):1483-1486, 2000

33. Chott A et al: The dominant T cell clone is present in multiple regressing skin lesions and associated T cell lymphomas of patients with lymphomatoid papulosis. *J Invest Dermatol* ***106***(4):696-700, 1996

34. Kadin ME et al: Clonal composition of T cells in lymphomatoid papulosis. *Am J Pathol* ***126***(1):13-17, 1987

35. Weiss LM WG et al: Clonal T cell populations in lymphomatoid papulosis: Evidence for a lymphoproliferative etiology in a clinically benign disease. *N Engl J Med* ***315***:475-479, 1986

36. Montgomery H, ed.: *Parapsoriasis in Dermatopathology*. New York, Harper & Row, 1967

37. Wood GS: Lymphocyte activation in cutaneous T-cell lymphoma. *J Invest Dermatol* ***105***(Suppl. 1):105S-109S, 1995

38. Muche JM et al: Demonstration of frequent occurrence of clonal T cells in the peripheral blood but not in the skin of patients with small plaque parapsoriasis. *Blood* ***94***(4):1409-1417, 1999

39. Wood GS et al: Detection of clonal T-cell receptor gamma gene rearrangements in early mycosis fungoides/Sezary syndrome by polymerase chain reaction and denaturing gradient gel electrophoresis (PCR/DGGE). *J Invest Dermatol* ***103***(1):34-41, 1994

40. Trento E et al: Human herpesvirus 8 infection in patients with cutaneous lymphoproliferative diseases. *Arch Dermatol* ***141***(10):1235-1242, 2005

41. Kreuter A, et al: High association of human herpesvirus 8 in large-plaque parapsoriasis and mycosis fungoides. *Arch Dermatol* ***144***(8):1011-1016, 2008

42. Quereux G et al: Evaluation of the role of human herpes virus 6 and 8 in parapsoriasis. *Exp Dermatol* ***18***(4):357-361, 2009

43. Hu CH, Winkelmann RK: Digitate dermatosis. A new look at symmetrical, small plaque parapsoriasis. *Arch Dermatol* ***107***(1):65-69, 1973

44. Samman PD: The natural history of parapsoriasis en plaques (chronic superficial dermatitis) and prereticulotic poikiloderma. *Br J Dermatol* ***87***(5):405-411, 1972

45. Wood GS et al: Expression of class II major histocompatibility antigens by keratinocytes in cutaneous T cell lymphoma. *Int J Dermatol* ***33***(5):346-350, 1994

46. Lindae ML AE, Hoppe RT, Wood GS: Poikilodermaous mycosis fungoides and atrophic large plaque parapsoriasis exhibit similar abnormalities of T cell antigen expression. *Arch Dermatol* ***124***:366-372, 1988

47. Ralfkiaer E et al: Phenotypic characterization of lymphocyte subsets in mycosis fungoides. Comparison with large plaque parapsoriasis and benign chronic dermatoses. *Am J Clin Pathol* ***84***(5):610-619, 1985

48. Buchner SA: [Parapsoriasis en plaques. Characterization of the cellular infiltrate using monoclonal antibodies]. *Z Hautkr* ***63***(5):423-424, 427-429, 1988

49. Burg G et al: Cutaneous lymphomas consist of a spectrum of nosologically different entities including mycosis fungoides and small plaque parapsoriasis. *Arch Dermatol* ***132***(5):567-572, 1996

50. Pimpinelli N et al: Defining early mycosis fungoides. *J Am Acad Dermatol* ***53***(6):1053-1063, 2005

51. Wood G: *The Benign and Malignant Cutaneous Lymphoproliferative Disorders Including Mycosis Fungoides*. Baltimore, MD, Williams and Wilkins, 2001

52. Lazar AP et al: Parapsoriasis and mycosis fungoides: The Northwestern University experience, 1970 to 1985. *J Am Acad Dermatol* ***21***(5 Pt 1):919-923, 1989

53. Vakeva L et al: A retrospective study of the probability of the evolution of parapsoriasis en plaques into mycosis fungoides. *Acta Derm Venereol* ***85***(4):318-323, 2005

54. Bernier C et al: CD13 and TCR clone: Markers of early mycosis fungoides. *Acta Derm Venereol* ***87***(2):155-159, 2007

55. King-Ismael D, Ackerman AB: Guttate parapsoriasis/digitate dermatosis (small plaque parapsoriasis) is mycosis fungoides. *Am J Dermatopathol* ***14***(6):518-530, 1992; discussion 531-515.

56. Belousova IE et al: A patient with clinicopathologic features of small plaque parapsoriasis presenting later with plaque-stage mycosis fungoides: report of a case and comparative retrospective study of 27 cases of "nonprogressive" small plaque parapsoriasis. *J Am Acad Dermatol* ***59***(3):474-482, 2008

57. Burg G, Dummer R: Small plaque (digitate) parapsoriasis is an 'abortive cutaneous T-cell lymphoma' and is not mycosis fungoides. *Arch Dermatol* ***131***(3):336-338, 1995

58. Ackerman AB: If small plaque (digitate) parapsoriasis is a cutaneous T-cell lymphoma, even an 'abortive' one, it must be mycosis fungoides! *Arch Dermatol* ***132***(5):562-566, 1996

59. Herzinger T et al: Treatment of small plaque parapsoriasis with narrow-band (311 nm) ultraviolet B: A retrospective study. *Clin Exp Dermatol* ***30***(4):379-381, 2005

60. Knobler E: Current management strategies for cutaneous T-cell lymphoma. *Clin Dermatol* ***22***(3):197-208, 2004

61. Gebert S et al: Excimer-laser (308 nm) treatment of large plaque parapsoriasis and long-term follow-up. *Eur J Dermatol* ***16***(2):198-199, 2006

62. Romani J et al: Pityriasis lichenoides in children: Clinicopathologic review of 22 patients. *Pediatr Dermatol* ***15***(1):1-6, 1998

63. Wahie S et al: Pityriasis lichenoides: The differences between children and adults. *Br J Dermatol*. ***157***(5):941-945, 2007

64. Bowers S, Warshaw EM: Pityriasis lichenoides and its subtypes. *J Am Acad Dermatol* ***55***(4):557-572, 2006; quiz 573-556

65. Ersoy-Evans S et al: Pityriasis lichenoides in childhood: a retrospective review of 124 patients. *J Am Acad Dermatol* ***56***(2):205-210, 2007

66. Khachemoune A, Blyumin ML: Pityriasis lichenoides: Pathophysiology, classification, and treatment. *Am J Clin Dermatol* ***8***(1):29-36, 2007

67. Rongioletti F, Rivara G, Rebora A: Pityriasis lichenoides et varioliformis acuta and acquired toxoplasmosis. *Dermatologica* ***175***(1):41-44, 1987

68. Gelmetti C et al: Pityriasis lichenoides in children: A long-term follow-up of eighty-nine cases. *J Am Acad Dermatol* ***23***(3 Pt 1):473-478, 1990

69. Nassef NE, Hammam MA: The relation between toxoplasmosis and pityriasis lichenoides chronica. *J Egypt Soc Parasitol* ***27***(1):93-99, 1997

70. Chuh AA: The association of pityriasis rosea with cytomegalovirus, Epstein-Barr virus and parvovirus B19 infections – A prospective case control study by polymerase chain reaction and serology. *Eur J Dermatol* ***13***(1):25-28, 2003

71. Klein PA et al: Infectious causes of pityriasis lichenoides: A case of fulminant infectious mononucleosis. *J Am Acad Dermatol* ***49***(Suppl. 1, Case Reports):S151-S153, 2003

72. Labarthe MP, Salomon D, Saurat JH: [Ulcers of the tongue, pityriasis lichenoides and primary parvovirus B19 infection]. [Article in French.] *Ann Dermatol Venereol* ***123***(11):735-738, 1996

73. Tomasini D et al: Pityriasis lichenoides: A cytotoxic T-cell-mediated skin disorder. Evidence of human parvovirus B19 DNA in nine cases. *J Cutan Pathol* ***31***(8):531-538, 2004

74. Griffiths JK: Successful long-term use of cyclosporin A in HIV-induced pityriasis lichenoides chronica. *J Acquir Immune Defic Syndr Hum Retrovirol* ***18***(4):396-397, 1998

75. Smith KJ et al: Pityriasis lichenoides et varioliformis acuta in HIV-1+ patients: A marker of early stage disease. The Military Medical Consortium for the Advancement of Retroviral Research (MMCARR). *Int J Dermatol* ***36***(2):104-109, 1997

76. Wood GS SJ et al: The immunohistology of pityriasis lichenoides et varioliformis acuta and pityriasis lichenoides chronica: Evidence for their interrelationship with lymphomatoid papulosis. *J Am Acad Dermatol* ***16***:559-570, 1987

77. Jowkar F et al: Triggering of pityriasis lichenoides et varioliformis acuta by radiocontrast iodide. *J Dermatolog Treat* ***19***(4):249-250, 2008

78. Kawamura K, Tsuji T, Kuwabara Y: Mucha-Habermann disease-like eruptions due to Tegafur. *J Dermatol* ***26***(3):164-167, 1999

79. Khosrotehrani K et al: Presence of chimeric maternally derived keratinocytes in cutaneous inflammatory diseases of children: The example of pityriasis lichenoides. *J Invest Dermatol* ***126***(2):345-348, 2006

80. Magro C et al: Pityriasis lichenoides: A clonal T-cell lymphoproliferative disorder. *Hum Pathol* ***33***(8):788-795, 2002

81. Muhlbauer JE et al: Immunopathology of pityriasis lichenoides acuta. *J Am Acad Dermatol* ***10***(5 Pt 1):783-795, 1984

82. Wenzel J et al: The role of cytotoxic skin-homing CD8+ lymphocytes in cutaneous cytotoxic T-cell lymphoma and pityriasis lichenoides. *J Am Acad Dermatol* ***53***(3):422-427, 2005

83. Shieh S MD, Wood GS: Differentiation and clonality of lesional lymphocytes in pityriasis lichenoides chronica. *J Invest Dermatol* ***114***:833, 2000

84. Weiss LM et al: Clonal T-cell populations in pityriasis lichenoides et varioliformis acuta (Mucha-Habermann disease). *Am J Pathol* ***126***(3):417-421, 1987

85. Sotiriou E et al: Febrile ulceronecrotic Mucha-Habermann disease: A case report and review of the literature. *Acta Derm Venereol* ***88***(4):350-355, 2008

86. Weinberg JM et al: The clonal nature of pityriasis lichenoides. *Arch Dermatol* ***138***(8):1063-1067, 2002

87. Verhamme T, Arnaout A, Ayliffe WH: Limbal and bulbar inflammatory nodules in a patient with pityriasis lichenoides et varioliformis acuta. *Bull Soc Belge Ophtalmol* (307):13-18, 2008

88. Ko JW et al: Pityriasis lichenoides-like mycosis fungoides in children. *Br J Dermatol* ***142***(2):347-352, 2000

89. Erpaiboon P, Mihara I, Niimura M: Lymphomatoid papulosis: Clinicopathological comparative study with pityriasis lichenoides et varioliformis acuta. *J Dermatol* ***18***(10):580-585, 1991

90. Kodama K et al: Papular mycosis fungoides: A new clinical variant of early mycosis fungoides. *J Am Acad Dermatol* ***52***(4):694-698, 2005

91. Magro CM et al: CD8 +lymphomatoid papulosis and its differential diagnosis. *Am J Clin Pathol* ***125***(4):490-501, 2006

92. Cozzio A et al: Febrile ulceronecrotic Mucha-Habermann disease with clonality: A cutaneous T-cell lymphoma entity? *J Am Acad Dermatol* ***51***(6):1014-1017, 2004

93. Skinner RB, Levy AL: Rapid resolution of pityriasis lichenoides et varioliformis acuta with azithromycin. *J Am Acad Dermatol* ***58***(3):524-525, 2008

94. Fernandez-Guarino M et al: Pityriasis lichenoides chronica: Good response to photodynamic therapy. *Br J Dermatol* ***158***(1):198-200, 2008

95. Massimiliano R et al: Role of bromelain in the treatment of patients with pityriasis lichenoides chronica. *J Dermatolog Treat* ***18***(4):219-222, 2007

96. Child FJ, Fraser-Andrews EA, Russell-Jones R: Cutaneous T-cell lymphoma presenting with 'segmental pityriasis lichenoides chronica.' *Clin Exp Dermatol* ***23***(5):232, 1998

97. Cliff S et al: Segmental pityriasis lichenoides chronica. *Clin Exp Dermatol* ***21***(6):464-465, 1996

98. Fortson JS, Schroeter AL, Esterly NB: Cutaneous T-cell lymphoma (parapsoriasis en plaque). An association with pityriasis lichenoides et varioliformis acuta in young children. *Arch Dermatol* ***126***(11):1449-1453, 1990

99. Truhan AP, Hebert AA, Esterly NB: Pityriasis lichenoides in children: Therapeutic response to erythromycin. *J Am Acad Dermatol* ***15***(1):66-70, 1986

100. LeVine MJ: Phototherapy of pityriasis lichenoides. *Arch Dermatol* ***119***(5):378-380, 1983

101. Piamphongsant T: Tetracycline for the treatment of pityriasis lichenoides. *Br J Dermatol* ***91***(3):319-322, 1974

102. Maekawa Y, Nakamura T, Nogami R: Febrile ulceronecrotic Mucha-Habermann's disease. *J Dermatol* ***21***(1):46-49, 1994

103. Simon D et al: Successful treatment of pityriasis lichenoides with topical tacrolimus. *Br J Dermatol* ***150***(5):1033-1035, 2004

104. Pinton PC et al: Medium-dose ultraviolet A1 therapy for pityriasis lichenoides et varioliformis acuta and pityriasis lichenoides chronica. *J Am Acad Dermatol* ***47***(3):410-414, 2002

105. Mallipeddi R, Evans AV: Refractory pityriasis lichenoides chronica successfully treated with topical tacrolimus. *Clin Exp Dermatol* ***28***(4):456-458, 2003