

**California Tumor Tissue Registry's  
Subscription "C" - Vol 3(4)  
January, 2010**

***"Pathology of Infectious Disease Part 3"*  
*See other Infectious Disease cases in Vol1(1) and Vol2(3)***

**Case 1** Donation: Dr. Roland Lonser, LLUMC

This is a mesenteric lymph node from a 45 year old man with mesenteric lymphadenopathy, weight loss and diarrhea.

**Dx: Whipple's disease**

Santa Rosa (Santa Rosa Memorial Hospital) - Histoplasmosis (1); Leishmaniasis (2)  
Woodland Hills (Kaiser Permanente) - Whipple's disease  
Alabama, Birmingham - Whipple's disease  
Alabama (Norwood Clinic) - MAI  
Arizona (Integrated Pathology) - Whipple's disease, lymph node  
Arkansas (The Laboratory of Pathology) - Whipple's disease  
Georgia, Atlanta - Whipple's disease  
Massachusetts, Peabody - Whipple's disease  
Massachusetts (Rhode Island-Lifespan) - Whipple's disease  
North Carolina (TriPath Oncology) - Whipple's disease vs. leishmaniasis  
Ohio, Columbus - Lymph node, mesenteric, histiocytosis, PAS+ bacillar bodies c/w Whipple's disease  
Kansas (Peterson Laboratory Services) - Mycobacterium avium, intracellular  
Pennsylvania (Conemaugh Memorial Medical Center) - Mycobacterium avium-intracellular infection  
Texas, Victoria - Whipple's disease  
Washington, Bothell - Whipple's disease  
Hong Kong (Hong Kong Baptist Hospital) - Whipple's disease  
Singapore (Freelance/Locum Practice) - Histoplasmosis  
The Netherlands, Amstelveen - Whipple's disease

Primary diagnosis of Whipple's disease in bone marrow. Krober SM; Kaiserling E; Horny HP; Weber A. Hum Pathol 2004 Apr;35(4): p522-5.

Whipple disease associated with giardiasis. Fenollar F; Lepidi H; Gerolami R; Drancourt M; Raoult D. J Infect Dis 2003 Sep 15;188(6): p828-34.

Sequencing and analysis of the genome of the Whipple's disease bacterium Tropheryma whippelii. Bentley SD; Maiwald M; Murphy LD; Pallen MJ; Yeats CA; Dover LG; Norbertczak HT; Besra GS; Quail MA; Harris DE; von Herbay A; Goble A; Rutter S; Squares R; Squares S; Barrell BG; Parkhill J; Relman DA. Lancet 2003 Feb 22;361(9358): p637-44. Comment: Lancet. 2003 Feb 22; 361(9358):632. Comment: Lancet. 2003 May 31; 361(9372):1916.

Whipple's disease. Misbah SA; Aslam A; Costello C. Lancet 2004 Feb 21;363(9409): p654-6.

Whipple's disease: immunospecific and quantitative immunohistochemical study of intestinal biopsy specimens. Lepidi H; Fenollar F; Gerolami R; Mege JL; Bonzi MF; Chappuis M; Sahel J; Raoult D. Hum Pathol 2003 Jun;34(6): p589-96.

## **Case 2** MN08\_163, Donation: Dr. Ravi Raghavan, LLUMC

This tissue is from needle core biopsies of a right upper lung lobe mass in a 69 year old female. She had a history of cough. She also had a history of breast cancer and was status post-mastectomy.

### **Dx: Coccidioides**

Santa Rosa (Santa Rosa Memorial Hospital) - Coccidioidomycosis (3)  
Woodland Hills (Kaiser Permanente) - Coccidioidomycosis  
Alabama, Birmingham - Granulomatous inflammation, rule out fungus/AFB  
Alabama (Norwood Clinic) - Blastomycosis  
Arizona (Integrated Pathology) - Coccidioides  
Arkansas (The Laboratory of Pathology) - Coccidiomycosis  
Georgia, Atlanta - Blastomycosis  
Massachusetts, Peabody - Mucormycosis, lung  
Massachusetts (Rhode Island-Lifespan) - Coccidioides  
North Carolina (TriPath Oncology) - Coccidioides vs. cryptococcus  
Ohio, Columbus - Lung, right upper lobe, granulomata with necrosis  
Kansas (Peterson Laboratory Services) - Coccidioidomycosis  
Pennsylvania (Conemaugh Memorial Medical Center) - Granulomatous inflammation (bacterial/fungal)  
Texas, Victoria - Blastomycosis  
Washington, Bothell - Blastomycosis  
Hong Kong (Hong Kong Baptist Hospital) - Granulomatous inflammation due to fungal infection  
Singapore (Freelance/Locum Practice) - Granulomatous inflammation with necrosis, favour tuberculosis  
The Netherlands, Amstelveen - Granulomatous inflammation and necrosis/mycotic or otherwise

Histopathologic findings of disseminated coccidioidomycosis with hyphae.  
Kappel ST; Wu JJ; Hillman JD; Linden KG. Arch Dermatol 2007 Apr;143(4): p548-9.

Unusual presentations of coccidioidomycosis: a case series and review of the literature. Crum-Cianflone NF; Truett AA; Teneza-Mora N; Maves RC; Chun HM; Bavaro MF; Hale BR. Medicine (Baltimore) 2006 Sep;85(5): p263-77.

Coccidioidomycosis: a descriptive survey of a reemerging disease: Crum NF; Lederman ER; Stafford CM; Parrish JS; Wallace MR. Medicine (Baltimore) 2004 May;83(3): p149-75.

Coccidioidomycosis: a review and update. Di Caudo DJ. J Am Acad Dermatol 2006 Dec;55(6): p929-42; quiz 943-5.

The early history of coccidioidomycosis: 1892-1945. Hirschmann JV. Clin Infect Dis 2007 May 1;44(9): p1202-7.

Coccidioidomycosis. Galgiani JN; Ampel NM; Blair JE; Catanzaro A; Johnson RH; Stevens DA; Williams PL. Clin Infect Dis 2005 Nov 1;41(9): p1217-23.

## **Case 3** Donation: Dr. Camilla Cobb, LLUMC

This is from a 47 year old male with a left kidney mass.

Gross: "This is a 920 gram, 21.0 x 11.0 x 9.0 cm kidney. Near the hilum there is a 3.0 x 1.5 cm patency expressing brown-tan and white-tan purulent debris. Arising from the cortex is a 10.0 x 8.0 x 4.0 cm mass with a central cavity containing necrotic debris. The mass extends to the inferior retroperitoneal margin. The dissection of the hilar vessels and ureter is unremarkable. The mass does not involve the pelvis. There is a 4.5 x 3.0 x 0.5 cm adrenal gland which is grossly uninvolved."

CD68 diffusely positive

CAM5.2 negative

GMS negative

PAS negative

AFB negative

Santa Rosa (Santa Rosa Memorial Hospital) - Xanthogranulomatous pyelonephritis (2); Granulomatous nephritis, rule out parasite (1)

Woodland Hills (Kaiser Permanente) - Xanthogranulomatous pyelonephritis

Alabama, Birmingham - Xanthogranulomatous pyelonephritis

Alabama (Norwood Clinic) - Histoplasmosis

Arizona (Integrated Pathology) - Xanthogranulomatous pyelonephritis

Arkansas (The Laboratory of Pathology) - Xanthogranulomatous pyelonephritis

Georgia, Atlanta - Xanthogranulomatous pyelonephritis

Massachusetts, Peabody - Xanthogranulomatous pyelonephritis

Massachusetts (Rhode Island-Lifespan) - Xanthogranulomatous pyelonephritis

North Carolina (TriPath Oncology) - Malakoplakia

Ohio, Columbus - Kidney, left xanthogranulomatous pyelonephritis

Kansas (Peterson Laboratory Services) - Xanthogranulomatous pyelonephritis

Pennsylvania (Conemaugh Memorial Medical Center) - Xanthogranulomatous pyelonephritis

Texas, Victoria - Chromoblastomycosis

Washington, Bothell - Xanthogranulomatous

Hong Kong (Hong Kong Baptist Hospital) - Xanthogranulomatous pyelonephritis

Singapore (Freelance/Locum Practice) - Xanthogranulomatous inflammation

The Netherlands, Amstelveen - Xanthogranulomatous inflammation

## **Dx: Xanthogranulomatous pyelonephritis**

Xanthogranulomatous pyelonephritis due to calculi: report of 63 cases and review of literature. Nawaz H; Khan S; Hussain I; Ahmed S; Khan M; Niazi N. J Pak Med Assoc 2005 Sep;55(9): p387-9.

Aspiration cytology of focal xanthogranulomatous pyelonephritis: a diagnostic challenge. Kumar N; Jain S. Diagn Cytopathol 2004 Feb;30(2): p111-4.

Xanthogranulomatous pyelonephritis in childhood: a critical analysis of 10 cases and of the literature. Zugor V; Schott GE; Labanaris AP. Urology 2007 Jul;70(1): p157-60.

Renal parenchymal malacoplakia: a different stage of xanthogranulomatous pyelonephritis? Yigiter M; Ilgici D; Celik M; Arda IS; Hicsonmez A. J Pediatr Surg 2007 Jul;42(7): pE35-8.

Nonfunctional right kidney in a 50-year-old woman. Xanthogranulomatous pyelonephritis. Mohanty A; Kim O. Arch Pathol Lab Med 2005 Dec;129(12): pe209-11.

#### **Case 4** Donation: Dr. Evelyn Choo, LLUMC

This is a bladder biopsy from a 61 year old woman with a history of moderately differentiated adenocarcinoma of the uterine cervix.

#### **Dx: Malacoplakia**

Santa Rosa (Santa Rosa Memorial Hospital) - Malakoplakia  
Woodland Hills (Kaiser Permanente) - Whipple's disease  
Alabama, Birmingham - Malakoplakia  
Alabama (Norwood Clinic) - Malakoplakia  
Arizona (Integrated Pathology) - Malakoplakia  
Arkansas (The Laboratory of Pathology) - Malakoplakia  
Georgia, Atlanta - Malakoplakia  
Massachusetts, Peabody - Malakoplakia, bladder  
Massachusetts (Rhode Island-Lifespan) - Malakoplakia  
North Carolina (TriPath Oncology) - Malakoplakia  
Ohio, Columbus - Urinary bladder, malakoplakia  
Kansas (Peterson Laboratory Services) - Malakoplakia  
Pennsylvania (Conemaugh Memorial Medical Center) - Malakoplakia  
Washington, Bothell - Xanthogranulomatous cystitis  
Hong Kong (Hong Kong Baptist Hospital) - Malakoplakia  
Singapore (Freelance/Locum Practice) - Malakoplakia  
The Netherlands, Amstelveen - Malakoplakia

Xanthogranulomatous pyelonephritis and malacoplakia of the bladder in a middle aged female. Wu IW; Yu CC; Wu CT; Jung SM; Huang JY. J Nephrol 2006 Mar-Apr;19(2): p222-4.

Renal parenchymal malacoplakia: a different stage of xanthogranulomatous pyelonephritis? Yigiter M; Ilgici D; Celik M; Arda IS; Hicsonmez A. J Pediatr Surg 2007 Jul;42(7): pE35-8.

Malacoplakia of the gallbladder. Di Tommaso L; Arizzi C; Roncalli M. Histopathology 2005 Apr;46(4): p474-5.

Malacoplakia of the bladder in a 16-year-old girl. Minor L; Lindgren BW. Urol 2003 Aug;170(2 Pt 1): p568-9.

Malacoplakia of the cranium and cerebrum in a human immunodeficiency virus-infected man. Case report. Toubes-Klingler E; Prabhu VC; Bernal K; Poage D; Swindells S. J Neurosurg 2006 Mar;104(3): p432-5.

#### **Case 5** Donation: Dr. Anwar Raza, LLUMC

This is left anterior labial skin biopsy from a 26 year old woman.

#### **Dx: Molluscum contagiosum**

Santa Rosa (Santa Rosa Memorial Hospital) - Molluscum contagiosum

Woodland Hills (Kaiser Permanente) - Molluscum contagiosum  
Alabama, Birmingham - Molluscum contagiosum  
Alabama (Norwood Clinic) - Molluscum contagiosum  
Arizona (Integrated Pathology) - Molluscum contagiosum  
Arkansas (The Laboratory of Pathology) - Molluscum contagiosum  
Georgia, Atlanta - Molluscum contagiosum  
Massachusetts, Peabody - Molluscum contagiosum, labia  
Massachusetts (Rhode Island-Lifespan) - Molluscum contagiosum  
North Carolina (TriPath Oncology) - Molluscum contagiosum  
Ohio, Columbus - Skin, left anterior labial, molluscum contagiosum  
Kansas (Peterson Laboratory Services) - Molluscum contagiosum  
Pennsylvania (Conemaugh Memorial Medical Center) - Molluscum contagiosum  
Texas, Victoria - Molluscum contagiosum  
Washington, Bothell - Molluscum contagiosum  
Hong Kong (Hong Kong Baptist Hospital) - Molluscum contagiosum  
Singapore (Freelance/Locum Practice) - Molluscum contagiosum  
The Netherlands, Amstelveen - Molluscum contagiosum

Molluscum contagiosum: the importance of early diagnosis and treatment.  
 Tying SK. Am J Obstet Gynecol 2003 Sep;189(3 Suppl): pS12-6.

Cytologic diagnosis of molluscum contagiosum in scrape samples from facial lesions. Gupta RK; Naran S; Lallu S; Fauck R. Diagn Cytopathol 2003 Aug;29(2): p84.

The epidemiology of molluscum contagiosum in children. Dohil MA; Lin P; Lee J; Lucky AW; Paller AS; Eichenfield LF. J Am Acad Dermatol 2006 Jan;54(1): p47-54.

Molluscum contagiosum in a patient with no risk factors. Luque Aranda R; Baquero Aranda I; Salido Hidalgo C; Garcia-Campos J. Eur J Ophthalmol 2006 Jul-Aug;16(4): p621-3.

Use of duct tape occlusion in the treatment of recurrent molluscum contagiosum. Lindau MS; Munar MY. Pediatr Dermatol 2004 Sep-Oct;21(5): p609.

## **Case 6** Donation: Dr. Herbert Harder, Glendale, CA

This is a nodule from the foot of a 25 y/o African man. A 2.8 x 1.0 cm ellipse of dark skin up to 1.0 cm thick was removed.

## **Dx: Mycetoma**

Santa Rosa (Santa Rosa Memorial Hospital) - Mycetoma (Madura foot) (1); Chromomycosis (2)  
Woodland Hills (Kaiser Permanente) - Actinomycotic mycetoma/Madura foot  
Alabama, Birmingham - Actinomycetoma  
Alabama (Norwood Clinic) - Mycetoma  
Arizona (Integrated Pathology) - Mycetoma  
Arkansas (The Laboratory of Pathology) - Mycetoma  
Georgia, Atlanta - Mycetoma  
Massachusetts, Peabody - Actinomycotic mycetoma  
Massachusetts (Rhode Island-Lifespan) - Mycetoma  
North Carolina (TriPath Oncology) - Actinomycotic mycetoma (Madura foot)

Ohio, Columbus - Skin and soft tissue, foot, abscesses with calcified material  
Kansas (Peterson Laboratory Services) - Botryomycosis  
Pennsylvania (Conemaugh Memorial Medical Center) - Actinomycetoma  
Texas, Victoria - Mycetoma  
Washington, Bothell - Actinomycosis  
Hong Kong (Hong Kong Baptist Hospital) - Actinomycosis  
Singapore (Freelance/Locum Practice) - Actinomyces  
The Netherlands, Amstelveen - Chronic active inflammation and eosinophils with PAMRAG-like structures

Mycetoma in children: experience with 15 cases. Bonifaz A; Ibarra G; Saul A; Paredes-Solis V; Carrasco-Gerard E; Fierro-Arias L. *Pediatr Infect Dis J* 2007 Jan;26(1): p50-2.

Molecular identification of black-grain mycetoma agents. Desnos-Ollivier M; Bretagne S; Dromer F; Lortholary O; Dannaoui E. *J Clin Microbiol* 2006 Oct;44(10): p3517-23.

Mycetoma of the foot caused by *Fusarium solani*: identification of the etiologic agent by DNA sequencing. Yera H; Bougnoux ME; Jeanrot C; Baixench MT; De Pinieux G; Dupouy-Camet J. *J Clin Microbiol* 2003 Apr;41(4): p1805-8.

Fine needle aspiration of a pulmonary mycetoma. A case report and review of the literature. Fernando SS; Jones P; Vaz R. *Pathology* 2005 Aug;37(4): p322-4.

*Nocardia mexicana* sp. nov., a new pathogen isolated from human mycetomas. Rodriguez-Nava V; Couble A; Molinard C; Sandoval H; Boiron P; Laurent F. *J Clin Microbiol* 2004 Oct;42(10): p4530-5.

### **Case 7** TR01\_29251, Donation: Dr. Gordon Hadley, LLUMC

This is tissue from a hemicolectomy specimen from a 40 year old male with a 10 day history of abdominal pain and distention, with vomiting. The cecum and ascending colon were dilated with thickened walls and white plaques on the mucosa. There were ulcerations and the specimen was foul-smelling.

### **Dx: Colonic amebiasis**

Santa Rosa (Santa Rosa Memorial Hospital) - Amebic dysentery (3)  
Woodland Hills (Kaiser Permanente) - Amebiasis  
Alabama, Birmingham - Amebiasis (colon)  
Alabama (Norwood Clinic) - *Entameba histolytica*  
Arizona (Integrated Pathology) - Amebiasis  
Arkansas (The Laboratory of Pathology) - Amebiasis  
Georgia, Atlanta - *Entameba histolytica*  
Massachusetts, Peabody - Pseudomembranous colitis  
Massachusetts (Rhode Island-Lifespan) - Amebiasis  
North Carolina (TriPath Oncology) - *Entamoeba histolytica* infection  
Ohio, Columbus - Colon, ulceration with abscess formation and amebiasis  
Kansas (Peterson Laboratory Services) - Amebiasis  
Pennsylvania (Conemaugh Memorial Medical Center) - Cytomegalovirus enteritis  
Texas, Victoria - Amebiasis  
Washington, Bothell - Mucosal ulcer with crypt abscess

Singapore (Freelance/Locum Practice) - Amebiasis

The Netherlands, Amstelveen - Extensive ulceration and chronic active inflammation caused by a mycotic/bacterial/parasitic infection

Histopathology of cutaneous amebiasis. Magana M; Magana ML; Alcantara A; Perez-Martin MA. Am J Dermatopathol 2004 Aug;26(4): p280-4.

Amoebiasis. Stanley SL. Lancet 2003 Mar 22;361(9362): p1025-34.

Evaluation of Entamoeba histolytica antigen and antibody point-of-care tests for the rapid diagnosis of amebiasis. Leo M; Haque R; Kabir M; Roy S; Lahlou RM; Mondal D; Tannich E; Petri WA. J Clin Microbiol 2006 Dec;44(12): p4569-71.

Invasive amebiasis as an emerging parasitic disease in patients with human immunodeficiency virus type 1 infection in Taiwan. Hung CC; Deng HY; Hsiao WH; Hsieh SM; Hsiao CF; Chen MY; Chang SC; Su KE. Arch Intern Med 2005 Feb 28;165(4): p409-15.

Laboratory diagnosis of amebiasis. Tanyuksel M; Petri WA. Clin Microbiol Rev 2003 Oct;16(4): p713-29.

Ruptured amoebic liver abscess with amoebic colitis. Phadke RS; Amarapurkar AD. J Hepatol 2003 Jan;38(1): p118.

### **Case 8** MS08\_3638, Donation: Dr. Donald Rankin, LLUMC

A mass was imaged in the right ventricle of the heart. This specimen is from a conservative resection that resulted in multiple white-tan and brown-tan soft tissue fragments that ranging from 0.6 to 2.3 cm in greatest dimension.

### **Dx: Candida albicans (culture proven)**

Santa Rosa (Santa Rosa Memorial Hospital) - Intracardiac fungal vegetation (1) Fungal endocarditis (2)

Woodland Hills (Kaiser Permanente) - Fungus/candida

Alabama, Birmingham - Fungal mass, favor aspergilloma

Alabama (Norwood Clinic) - Aspergillosis

Arizona (Integrated Pathology) - Candidiasis

Arkansas (The Laboratory of Pathology) - Fungal endocarditis

Georgia, Atlanta - Aspergillosis

Massachusetts, Peabody - Fungal myocarditis (aspergillus)

Massachusetts (Rhode Island-Lifespan) - Candida albicans

North Carolina (TriPath Oncology) - Favor candida over aspergillosis

Ohio, Columbus - Heart, right ventricle, granulomatous inflammation with fungal hyphae

Kansas (Peterson Laboratory Services) - Aspergilloma

Pennsylvania (Conemaugh Memorial Medical Center) - Aspergillosis

Texas, Victoria - Acanthamoeba sp

Washington, Bothell - Fungal organism consistent with candida

Hong Kong (Hong Kong Baptist Hospital) - Aspergillosis

Singapore (Freelance/Locum Practice) - Fungal infection, favour candida

The Netherlands, Amstelveen - Mycotic infection (aspergillosis)



Morphogenesis in *Candida albicans*. Whiteway M; Bachewich C. Annu Rev Microbiol 2007;61:529-53.

*Candida albicans* tricuspid and pulmonic valve endocarditis: challenge of relapsing risk and role of combined medical treatment and surgery. Salamon SA; Fuursted K; Egeblad H; Petersen E; Ott P. Scand J Infect Dis 2007;39(6-7): p641-4.

Evaluation of the new chromogenic medium *Candida* ID 2 for isolation and identification of *Candida albicans* and other medically important *Candida* species. Eraso E; Moragues MD; Villar-Vidal M; Sahand IH; Gonzalez-Gomez N; Ponton J; Quindos G. J Clin Microbiol 2006 Sep;44(9): p3340-5.

*Candida albicans* biology and pathogenicity: insights from proteomics. Pitarch A; Nombela C; Gil C. Methods Biochem Anal 2006;49:285-330.

Atypical cutaneous manifestation of HSV-2 with *Candida albicans* co-infection in a patient with HIV-1. Panasiti V; Devirgiliis V; Borroni RG; Spataro A; Melis L; Petrella MC; Pala S. J Infect 2007 Feb;54(2): p55-7.

### **Case 9** MS96\_172, Donation: Dr. Kevin Thompson, LLUMC

A 15 year old girl with a 1 month history of fever, a 1 week history of diarrhea and 3 days history of vomiting presented with profuse bleeding from her rectum. She was given fluids, antibiotics and transfusions and taken to surgery where an obvious inflammatory process was identified at the terminal ileum. An "inflammatory band" connected it to the omentum. The lumen was filled with blood and there were enlarged regional lymph nodes.

Pathologic examination of the ileo-colic resection specimen showed multiple ileal ulcers up to 5 cm in diameter. They were associated with necrotic yellow-tan exudate. Cultured material grew gram negative bacilli with growth on MacConkey agar and no gas but small H<sub>2</sub>S+ with a TSI agar slant.

### **Dx: *Salmonella typhi* (Typhoid)**

Santa Rosa (Santa Rosa Memorial Hospital) - *Salmonella typhi* enteritis (1); Ulcerative enteritis with mesenteric lymphadenitis, consistent with *Yersinia enterocolitica* (2)

Woodland Hills (Kaiser Permanente) - Acute infectious colitis, *salmonella typhi*

Alabama, Birmingham - *Salmonella typhi*

Alabama (Norwood Clinic) - *Yersinia*

Arizona (Integrated Pathology) - Typhoid, ileum

Arkansas (The Laboratory of Pathology) - *Yersinia enterocolitis*

Georgia, Atlanta - *Yersinosis*

Massachusetts, Peabody - *Salmonellosis* (typhoid fever)

Massachusetts (Rhode Island-Lifespan) - Necrotizing ileitis and lymphadenitis

North Carolina (TriPath Oncology) - *Salmonella typhimurium* infection

Ohio, Columbus - Ileum, ulcerations, focal granulomatous inflammation

Kansas (Peterson Laboratory Services) - *Salmonella typhi* infection

Pennsylvania (Conemaugh Memorial Medical Center) - *Salmonella* enteritis

Texas, Victoria - *Salmonella typhi*

Washington, Bothell - Granulomatous inflammation with mucosal ulcer

Hong Kong (Hong Kong Baptist Hospital) - *Yersinia* infection

Singapore (Freelance/Locum Practice) - Granulomatous inflammation, suspect typhoid fever but to exclude tuberculosis



The Netherlands, Amstelveen - Viral hemophagocytic syndrome

Evolutionary history of Salmonella typhi. Roumagnac P; Weill FX; Dolecek C; Baker S; Brisse S; Chinh NT; Le TA; Acosta CJ; Farrar J; Dougan G; Achtman M. Science 2006 Nov 24;314(5803): p1301-4.

Salmonella typhi endocarditis: a case report. Khan GQ; Kadri SM; Hassan G; Shahid IT; Gazanfar A; Kak M; Showkat H. J Clin Pathol 2003 Oct;56(10): p801-2.

A steady decrease in occurrence of Salmonella typhi infection in Rourkela, Orissa. Bhattacharya SS; Das U. Indian J Pathol Microbiol 2003 Jul;46(3): p498-500.

Rapid diagnosis of typhoid fever by enzyme-linked immunosorbent assay detection of Salmonella serotype typhi antigens in urine. Fadeel MA; Crump JA; Mahoney FJ; Nakhla IA; Mansour AM; Reyad B; El Melegi D; Sultan Y; Mintz ED; Bibb WF. Am J Trop Med Hyg 2004 Mar;70(3): p323-8.

Early diagnosis of typhoid fever by the detection of salivary IgA. Herath HM. J Clin Pathol 2003 Sep;56(9): p694-8.

**Case 10** Donation: Dr. Fred Soeprono (dermatopathologist), LLUMC

A middle aged man presented with multiple plaques extensively involving the trunk and extremities. He had been unsuccessfully treated for "psoriasis" for greater than a year.

**Dx: Norwegian scabies**

Santa Rosa (Santa Rosa Memorial Hospital) - Scabies (3)

Woodland Hills (Kaiser Permanente) - Norwegian scabies

Alabama, Birmingham - Scabies

Alabama (Norwood Clinic) - Demodex

Arizona (Integrated Pathology) - Scabies, skin

Arkansas (The Laboratory of Pathology) - Norwegian scabies

Georgia, Atlanta - Scabies

Massachusetts, Peabody - Norwegian scabies

Massachusetts (Rhode Island-Lifespan) - Scabies

North Carolina (TriPath Oncology) - Scabies

Ohio, Columbus - Skin, soft tissue, scabies

Kansas (Peterson Laboratory Services) - Scabies

Pennsylvania (Conemaugh Memorial Medical Center) - Scabies infection

Texas, Victoria - Scabies

Washington, Bothell - Scabies

Hong Kong (Hong Kong Baptist Hospital) - Demodex infestation

Singapore (Freelance/Locum Practice) - Arthropod/parasitic infection, favour scabies

The Netherlands, Amstelveen - Sand fly infection

Norwegian scabies mimicking onychomycosis and scalp dermatitis in a child with IPEX syndrome. McLucas P; Fulchiero GJ; Fernandez E; Miller JJ; Zaenglein AL. J Am Acad Dermatol 2007 Feb;56(2 Suppl): pS48-9.

Unusual laboratory findings in a case of Norwegian scabies provided a clue to diagnosis. Wong SS; Woo PC; Yuen KY. J Clin Microbiol 2005 May;43(5): p2542-4.

Norwegian scabies in Peru: the impact of human T cell lymphotropic virus type I infection. Blas M; Bravo F; Castillo W; Castillo WJ; Ballona R; Navarro P; Catacora J; Cairampoma R; Gotuzzo E. Am J Trop Med Hyg 2005 Jun;72(6): p855-7.

Crusted Norwegian scabies in an adult with Langerhans cell histiocytosis: mishaps leading to systemic chemotherapy. Kartono F; Lee EW; Lanum D; Pham L; Maibach HI. Arch Dermatol 2007 May;143(5): p626-8.

Persistent eosinophilia as a presenting sign of scabies in patients with disorders of keratinization. Sluzevich JC; Sheth AP; Lucky AW. Arch Dermatol 2007 May;143(5): p670-3.

The "army itch:" a dermatological mystery of the American Civil War. Cropley TG. J Am Acad Dermatol 2006 Aug;55(2): p302-8.

### **Bonus Case 11** Donation: Dr. J. R. Phillips, Fresno, CA

This 21 year old man presented with a 5-6 week history of bilateral inguinal lymphadenopathy. He had a history of lower anterior chest pain for one month and had had a recent diffuse skin eruption which was fading. During the workup enlarged lymph nodes were also found in the right axilla

This specimen is from the inguinal lymph nodes. Organisms were seen that stained with a Warthin-Starry preparation.

### **Dx: Syphilitic lymphadenitis**

Santa Rosa (Santa Rosa Memorial Hospital) - Secondary syphilis (1); Probably luetic lymphadenitis (1); Spirochetal lymphadenitis (1)

Woodland Hills (Kaiser Permanente) - Lyme disease

Syphilis in the United States: an update for clinicians with an emphasis on HIV coinfection. Zetola NM; Engelman J; Jensen TP; Klausner JD. Mayo Clin Proc. 2007 Nov; 82(11):1434. Mayo Clin Proc 2007 Sep;82(9): p1091-102.

Clinical update: syphilis in adults. Wohrl S; Geusau A. Lancet 2007 Jun 9;369(9577): p1912-4.

Syphilitic tonsillitis presenting as an ulcerated tonsillar tumor with ipsilateral lymphadenopathy. Oddo D; Carrasco G; Capdeville F; Ayala MF. Ann Diagn Pathol 2007 Oct;11(5): p353-7.

Secondary syphilitic lesions. Baughn RE; Musher DM. Clin Microbiol Rev 2005 Jan;18(1): p205-16.

Evaluation of a rapid strip and a particle agglutination tests for syphilis diagnosis. Juarez-Figueroa L; Uribe-Salas F; Garcia-Cisneros S; Olamendi-Portugal M; Conde-Glez CJ. Diagn Microbiol Infect Dis 2007 Oct;59(2): p123-6.

Comparative evaluation of 15 serological assays for the detection of syphilis infection. Cole MJ; Perry KR; Parry JV. Eur J Clin Microbiol Infect Dis 2007 Oct;26(10): p705-13.