Telemedicine Clinic
Rattanakiri
Referral Hospital
June 2008

Report and photos compiled by Rithy Chau and Sovann Peng, SHCH Telemedicine

On Tuesday and Wednesday June 10 - 11, 2008, Rattanakiri Referral Hospital (RRH) staffs began their TM clinic. Patients 2 new cases were examined, and the data were transcribed along with digital pictures of the patients, then transmitted and received replies from their TM partners in Boston and Phnom Penh. PA Rithy Chau saw 35 patients extra for minor illnesses without transmitting the data.

The following day, Thursday June 12, 2008, the TM clinic opened again to receive the same patients and other follow-up patients for further evaluation, treatment and management. Finally, the data for treatment and management would then be transcribed and transmitted to Nurse Peng Sovann at SHCH who compiled and sent for website publishing.

The followings detail e-mails and replies to the medical inquiries communicated between TM clinic at RRH and their TM partners in Phnom Penh and Boston:

From: Hospital Rattanakiri Referral [mailto:kirihospital@gmail.com]
Sent: Thursday, June 05, 2008 4:50 PM
To: Chau Rithy; Chau Rithy; Paul J. M.D. Heinzelmann; Joseph Kvedar; Kathleen M. Kelleher; Kruy Lim; Brian Hammond; Cornelia Haener
Cc: Bernie Krisher; Ed & Laurie Bachrach; Noun SoThero
Subject: June TM clinic at Ratanakiri Referral Hospital

Dear All,

Please be informed that the next TM clinic at Rattanakiri Referral Hospital will be held on Wednesday, June 11, 2008 beginning at 8:00am local time for one full day. We expect to enter and transmit the patient data to those of you at SHCH and at Partner in Boston that evening.

Please try to respond before noontime the following day, Thursday, June 12, 2008.The patients will be asked to return to the hospital that afternoon on Thursday to receive treatment along with a follow up plan or referral.

Thank you very much for your cooperation and service.

Best regards,

Channarith Ly

From: Hospital Rattanakiri Referral [mailto:kirihospital@gmail.com]
Sent: Wednesday, June 11, 2008 5:10 PM
To: Paul J. M.D. Heinzelmann; Joseph Kvedar; Kathleen M. Kelleher; Kruy Lim; Chau Rithy

Cc: Bernie Krisher; Noun SoThero; Ed & Laurie Bachrach
Subject: Rattanakiri TM Clinic June 2008, Case#1, HN#00300, 17M (Cheung Ra Village)

Dear all,

There are two new cases for Rattanakiri TM Clinic June 2008. This is case number one, HN#00300, 17M and photos.

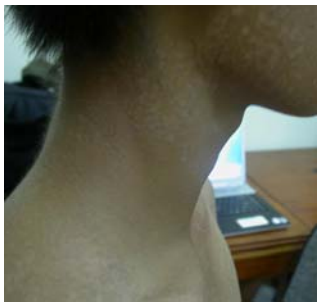
Best regards,
Sovann

Rattanakiri Provincial Hospital Telemedicine Clinic
with
Sihanouk Hospital Center of HOPE and Partners in Telemedicine

Patient: HN#00300, 17M (Cheung Ra Village)

Chief Complaint: Face and body skin rash x 5 months

HPI: 17M, grade 6 student, came to us complaining of face and body skin rash. The rash appeared from the face then developed to the back, chest and neck with symptoms of mild itchy, no erythema, no vesicle, no pustule. He got treatment with Ciclopirox cream apply once a day then all the rashes gone for a few weeks then it has appeared again. He denied of rashes on head, arm and from waist to the food.

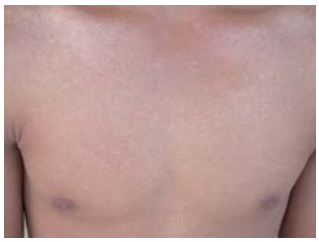


PMH: Unremarkable

Family Hx: None

Social Hx: grade 6 student, no alcohol drinking, no smoking

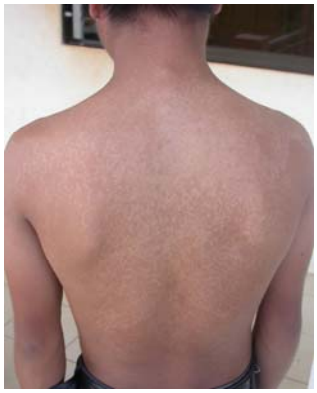
Medication: Ciclopirox apply qd



Allergies: NKDA

ROS: no fever, no cough, no SOB, normal appetite, normal bowel movement, normal urination

PE:
Vital Signs: BP: 100/50 P: 78 R: 20 T: 37.5^{o}C Wt: 48Kg



General: Look stable

HEENT: No oropharyngeal lesion, pink conjunctiva, no neck mass, no lymph node palpable

Chest: CTA bilaterally, no rale, no rhonchi; H RRR, no murmur

Abdomen: Soft, no tender, no distension, (+) BS, no HSM

Extremity/Skin: On face, neck, chest and back, macule rash, hyperpigmentation, and hypopigmentation, some scaly skin, no erythema, no vesicle, no pustule; no rash on head, and from waist to the foot

MS/Neuro: MS +5/5, motor, sensory intact, DTRs +2/4

Lab/Studies done today: None

Assessment:

1. Pityriasis versicolor

Plan:

1. Fluconazole 150mg 1t po qd for one month
2. Draw blood for CBC, Lyte, BUN, Creat, Gluc, LFT at SHCH

Comments/Notes: Do you agree with my assessment and plan?

Examined by: Nurse Sovann Peng **Date: June 10, 2008**

Please send all replies to kirihospital@gmail.com and cc: to tmed_rithy@online.com.kh and kirihospital@yahoo.com.

From: Kvedar, Joseph Charles,M.D.
Sent: Wednesday, June 11, 2008 4:39 PM
To: Fiamma, Kathleen M.
Cc: Armstrong, April,M.D.
Subject: Re: Rattanakiri TM Clinic June 2008, Case#1, HN#00300, 17M (Cheung Ra Village)

This certainly looks like tinea versicolor as pointed out by Sovann. I agree with the treatment as well.
--
Joseph C. Kvedar, MD
Director, Center for Connected Health
Partners HealthCare System, Inc.
Associate Professor of Dermatology
Harvard Medical School

25 New Chardon Street
Suite 400 D
Boston, MA 02114

From: Hospital Rattanakiri Referral [mailto:kirihospital@gmail.com]
Sent: Wednesday, June 11, 2008 5:28 PM
To: Paul J. M.D. Heinzelmann; Joseph Kvedar; Kathleen M. Kelleher; Kruy Lim; Chau Rithy
Cc: Bernie Krisher; Noun SoThero; Ed & Laurie Bachrach
Subject: Rattanakiri TM Clinic June 2008, Case#2, NL#00301, 53M (Lum Phat)

Dear all,
This is case number 2, NL#00301, 53M and photos.
Please reply to the case before Thursday afternoon. Thank you very much for your cooperation and support in this project.
Best regards,
Sovann

Rattanakiri Provincial Hospital Telemedicine Clinic
with
Sihanouk Hospital Center of HOPE and Partners in Telemedicine

Patient: NL#00301, 53M (Lum Phat)

Chief Complaint: Cough, dyspnea, edema for 3 months and skin rashes for 5 days

HPI: 53M presented with symptoms of cough, dyspnea and general edema and was examined at private clinic with Pneumonia and told he has proteinuria 2+. He was treated with Traditional medicine and Furosemide 20mg bid, Vit B1, B12, B6 tid, Asmacort tid on/off for 1 month. Now he has still presented with cough, dyspnea, edema and has presented with skin rashes for 5d, itchy. He has been admitted to hospital and treated with Ampicillin 1g tid, Gentamycin 80mg bid and Paracetamol 500mg tid.

PMH: None

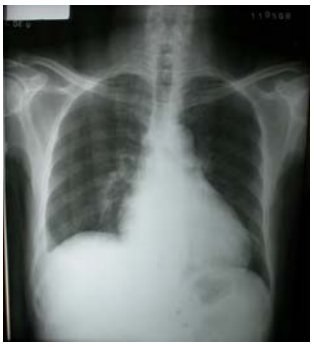
Family Hx: None

Social Hx: smoking 5cig/d over 20y, drinking alcohol casually

Medication:
1. Ampicillin 1g tid
2. Gentamycin 80mg bid
3. Paracetamol 500mg tid

Allergies: NKDA

ROS: skin rash all over the body, stomatitis



PE:
Vital Signs: BP: 120/60 P: 130 R: 30 T: 38°C Wt: 47Kg

General: Look sick

HEENT: No icterus, pink conjunctiva, no neck mass, no lymph node palpable, (+) JVD

Chest: Crackle on left lower lung and decreased breath sound on right lower lobe; H tachycardia, regular rhythm, +2 holosystolic murmur and murffle heart sound at apex

Abdomen: Soft, no tender, no distension, (+) BS

Extremity/Skin: 1+ pitting edema on bilateral ankle and foot, maculopapular rash all over the body, extremity, no vesicle, no pustule

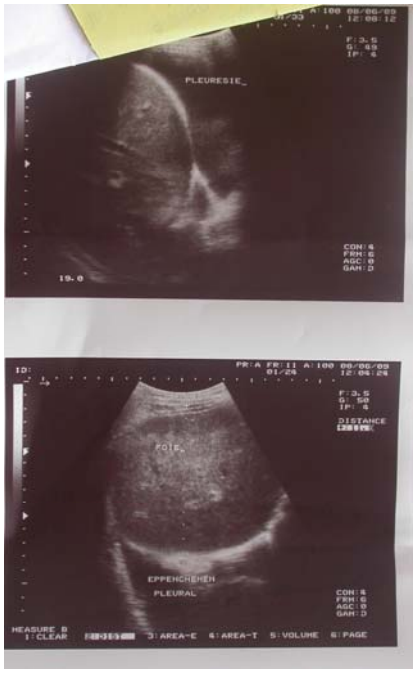
GU: normal genitalia

MS/Neuro: Unremarkable

Lab/Studies done today: Today on June 11, 2008
UA: protein 2+

U/S conclusion: Right pleural effusion

EKG and CXR and US attached



Assessment:

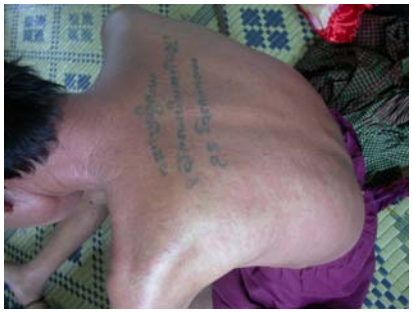
1. COPD
2. Right Pleural effusion
3. Pneumonia
4. PTB??
5. CHF?
6. Cardiomegaly
7. Generalized Urticaria

Plan:

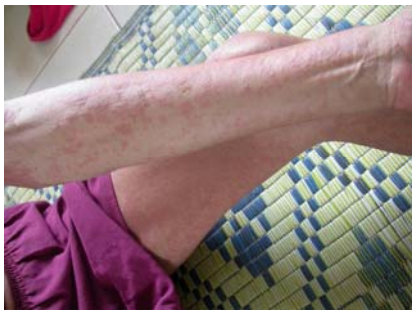
1. Clarithromycin 500mg 1t po bid for 10d
2. Furosemide 20mg 1t pot id for 5d
3. Chlopheniramin 4mg 2t po qid for 5d
4. Cimetidine 400mg 1t pot id for 5d
5. Draw blood for CBC, Lyte, BUN, Creat, Gluc at SHCH

Comments/Notes: Do you agree with my assessment and plan?

Examined by: Dr. Leng Sreng **Date: June 11, 2008**



Please send all replies to kirihospital@gmail.com and cc: to tmed_rithy@online.com.kh and kirihospital@yahoo.com.



From: Cusick, Paul S.,M.D. [mailto:PCUSICK@PARTNERS.ORG]
Sent: Thursday, June 12, 2008 5:08 AM
To: Fiamma, Kathleen M.; kirihospital@gmail.com
Cc: tmed_rithy@online.com.kh; kirihospital@yahoo.com
Subject: RE: Rattanakiri TM Clinic June 2008, Case#2, NL#00301, 53M (Lum Phat)

Thank you for the consult.

He is 53 with a 3 month history of cough, dyspnea and edema.
He was diagnosed at a private clinic with pneumonia and was treated w/ traditional medicine and with furosemide and with corticosteroid inhaler. He did not improve.
He was in the hospital and diagnosed with pneumonia. He was treated with gentamycin and ampicillin and developed a rash.

He has an examination with tachycardia and tachypnea. He looks ill.
He has decreased breath sounds on the rt base and crackles on the left.
He has a diffuse maculopapular skin rash that looks like a drug rash.
He has 1+edema of the lower extremities.
He has a holosystolic murmur at the left base.

He has blunting of the right base and an enlarged heart (cardiomegaly) on his chest xray.
He has sinus tachycardia with Q waves in V1 and V2 and poor transition (V4) with t wave inversions in leads v4 to v6.
He may have atrial enlargement on the EKG.
He has 2+ protienuria.

This looks like a drug rash on his skin.

It does not or look like pneumonia by history and by CXR and lack of response to antibiotics.

His 3 months of dyspnea and edema could certainly be from a cardiac source. His presentation and findings are consistent with congestiive heart failure with cardiomegaly and valvular heart disease and possible EKG evidence for remote ischemia.

Another possible cause would be rheumatic heart and renal disease with valvular heart disease leading to ventricular hypertrophy and congestive heart disease. This could also account for the pleural effusion and protein in the urine and leg edema.

Another possible cause would be infectious or malignant pericardial effusion with congestive heart failure, cardiomegaly but there is no mention of pulsus paradoxicus or cardiac rub on exam and EKG is not classic for pericardial effusion or tamponade.

I would think that cardiology input would be helpful and that an echocardiogram would be helpful.

Initially, I would manage the edema and shortness of breath with lasix 20-40mg by mouth twice daily with increased green vegetables to prevent potassium loss. Low salt diet. Stop smoking.

I would not treat with antibiotics.

I would use antihistamine and cimetidine as you are doing for the rash.

He sounds ill. He may need to go to a hospital.

I look forward to seeing the results of his blood tests.

Please let us know how he responds with diuretics.

From: Armstrong, April,M.D.
Sent: Wednesday, June 11, 2008 6:51 PM
To: Fiamma, Kathleen M.
Cc: Kvedar, Joseph Charles,M.D.; Armstrong, Ehrin J.,M.D.
Subject: RE: Rattanakiri TM Clinic June 2008, Case#2, NL#00301, 53M (Lum Phat)

In terms of the skin eruption, this appears to be a morbiliform eruption that is progressing to erythroderma. From the images, the morbiliform eruption most resembles a drug hypersensitivity reaction. This would be consistent with the clincial history that the patient had been treated at a private clinic for pneumonia prior this this latest presentation. I do not see an antibiotic from the list of medications from his _initial_ treatment at the private clinic. If an antibiotic was administered at that time, many antibiotic drugs are capable of eliciting a cutaneous hypersensitivity reaction as seen in this man. In the medication list that was given for the initial visit, furosemide would be the most likely culprit for the cutaneous eruption.

For management, I would recommend clobetasol ointment (or a class 1 -- strongest topical steroid you have available) to be applied twice a day for 2 weeks to the torso and extremity. Please watch out for signs and symptoms that could suggest progression to Stevens-Johnson Syndrome or Toxic Epidermal Necrolysis, such as blister formation and mucosal lesions, although he does not seem to have any of these signs from the photos.

Best regards,
April Armstrong, MD

From: Hospital Rattanakiri Referral [mailto:kirihospital@gmail.com]
Sent: Thursday, June 12, 2008 10:23 AM
To: Kathleen M. Kelleher
Cc: Bernie Krisher; Noun SoThero; Ed & Laurie Bachrach; Chau Rithy
Subject: Rattanakiri TM Clinic case received

Dear Kathy,

I have received one case from you, Case number 2, NL#00301, 53M but not yet receive case number 1, HN#00300, 17M. Thank you very much for your reply to the case in this month.

Best regards,
Sovann

Thursday, June 12, 2008

Follow-up Report for Rattanakiri TM Clinic

There were 2 new patients seen during this month TM clinic at Rattanakiri Referral Hospital (RRH). The data of 2 cases was transmitted and received replies from both Phnom Penh and Boston, other 11 patients came for follow up and refill medication, and 34 patients seen by PA Rithy for minor problem. Per advice sent by Partners in Boston and Phnom Penh Sihanouk Hospital Center of HOPE as well as advices from PA Rithy on site, the following patients were managed and treated per local staff:

[Please note that in general the practice of dispensing medications at RRH for all patients is usually limited to a maximum of 7 days treatment with expectation of patients to return for another week of supplies if needed be. This practice allows clinicians to monitor patient compliance to taking medications and to follow up on drug side effects, changing of medications, new arising symptoms especially in patients who live away from the town of Banlung and/or illiterate. Nearly all medications and some lab tests not available/done at RRH are provided by SHCH to TM patients at no cost]

Treatment Plan for Rattanakiri TM Clinic June 2008

1. HN#00300, 17M (Cheung Ra Village)
Diagnosis:

1. Pityriasis versicolor

Treatment:

1. Fluconazole 150mg 1t po qd for one month (#60)
2. Draw blood for CBC, Lyte, BUN, Creat, Gluc, LFT at SHCH

Lab result on June 15, 2008

WBC	=5.2	[4 - 11x10^9/L]	Na	=144	[135 - 145]
RBC	=5.3	[4.6 - 6.0x10^{12}/L]	K	=3.9	[3.5 - 5.0]
Hb	=14.0	[14.0 - 16.0g/dL]	Cl	=107	[95 - 110]

Ht	=44	[42 - 52%]	BUN	=0.8	[0.8 - 3.9]
MCV	=83	[80 - 100fl]	Creat	=83	[53 - 97]
MCH	=26	[25 - 35pg]	Gluc	=4.6	[4.2 - 6.4]
MHCH	=32	[30 - 37%]	SGOT	=25	[37]
Plt	=235	[150 - 450x10^9/L]	SGPT	=17	[<42]
Lym	=1.8	[1.0 - 4.0x10^9/L]			
Mxd	=1.1	[0.1 - 1.0x10^9/L]			
Neut	=2.3	[1.8 - 7.5x10^9/L]			

2. NL#00301, 53M (Lum Phat)
Diagnosis:

1. COPD
2. Right Pleural effusion
3. Pneumonia
4. PTB??
5. CHF?
6. Cardiomegaly
7. Generalized Urticaria

Treatment:

1. Clarithromycin 500mg 1t po bid for 10d
2. Furosemide 20mg 1t po tid for 5d
3. Chlopheniramin 4mg 2t po qid for 5d
4. Cimetidine 400mg 1t po tid for 5d
5. Draw blood for CBC, Lyte, BUN, Creat, Gluc at SHCH

Lab result on June 15, 2008

WBC	=8.4	[4 - 11x10^9/L]	Na	=131	[135 - 145]
RBC	=5.8	[4.6 - 6.0x10^{12}/L]	K	=3.1	[3.5 - 5.0]
Hb	=16.7	[14.0 - 16.0g/dL]	Cl	=92	[95 - 110]
Ht	=51	[42 - 52%]	BUN	=4.5	[0.8 - 3.9]
MCV	=87	[80 - 100fl]	Creat	=79	[53 - 97]
MCH	=29	[25 - 35pg]	Gluc	=8.5	[4.2 - 6.4]
MHCH	=33	[30 - 37%]	SGOT	=83	[37]
Plt	=99	[150 - 450x10^9/L]	SGPT	=41	[<42]
Lym	=3.4	[1.0 - 4.0x10^9/L]			
Mxd	=0.7	[0.1 - 1.0x10^9/L]			
Neut	=4.3	[1.8 - 7.5x10^9/L]			

Patient who came for follow up and refill medication

1. NS#00006, 18F (Village I)
Diagnosis:

1. Euthyroid goiter

Treatment:

1. Carbimazole 5mg 1t po tid
2. Propranolol 40mg ¼t po bid
3. Appointment for surgical consultation

2. PO#00148, 67F (Village III)
Diagnosis:

1. HTN
2. DMII with PNP

Treatment:

1. Metformin 500mg 2t po qhs
2. Glibenclamide 5mg 2t po bid
3. Captopril 25mg ¼t po bid

4. ASA 300mg ¼t po qd
5. Amitriptylin 25mg ½t po qhs
6. Simvastatin 5mg 1t po qhs
7. Recheck Tot Chole, TG, Gluc and HbA1C in August

3. OT#00155, 45F (Bor Keo)
Diagnosis:
1. HTN
2. DMII

Treatment:
1. Metformin 500mg 2t qAM, 3t qPM (#500)
2. Glibenclamide 5mg 2t po bid (#400)
3. Captopril 25mg 1/2t po bid (100)
4. ASA 300mg ¼t po qd (#25)
5. Amitriptylin 25mg ½t po qhs (#50)
6. Citirizin 10mg 1t po qd (buy)

4. RH#00160, 67F (Village I)
Diagnosis:
1. HTN
2. OA

Treatment:
1. Captopril 25mgmg 1tab po qd (#100)
2. Amitriptylin 25mg ½ tab po qhs (#50)
3. ASA 300mg ¼tab po qd (#25)
4. Draw blood for Lyte, BUN, Creat, Gluc at SHCH

Lab result on June 15, 2008

Na	=144	[135 - 145]
K	=4.5	[3.5 - 5.0]
Cl	=110	[95 - 110]
BUN	=1.0	[0.8 - 3.9]
Creat	=59	[44 - 80]
Gluc	=5.9	[4.2 - 6.4]

5. SR#00190, 35F (Village I)
Diagnosis:
1. Euthyroid goiter
2. HA

Treatment:
1. Tylenol sinus 1t po qid (#12)

6. SV#00256, 43M (Village I)
Diagnosis:
1. DMII

Treatment:
1. Glibenclamide 5mg 2t po qd
2. Metformin 500mg 2t po qhs
3. Recheck Gluc and HbA1C in August

7. KC#00260, 44F (Village V)
Diagnosis:
1. DMII

Treatment:

1. Metformin 500mg 1t po qhs
2. Glibenclamide 5mg 1t po qd
3. Recheck Gluc and HbA1C in August

8. VC#00268, 66M (Bey Srok Village)
Diagnosis:
1. DMII

Treatment:
1. Metformin 500mg 2t po bid
2. Glibenclamide 5mg 2t po bid
3. Captopril 25mg 1/4t po qd
4. ASA 300mg 1/4t po qd
5. Recheck FBS and HbA1C in August

9. OE#00273, 65M (Village I)
Diagnosis:
1. DMII with PNP

Treatment:
1. Glibenclamide 5mg 2t po bid
2. Captopril 25mg 1/4t po qd
3. ASA 300mg 1/4t po qd
4. Amitriptylin 25mg 1/2t po qhs
5. MTV 1t po qd for one month
6. Recheck Gluc and HbA1C in August

10. MP#00275, 10M (Village I)
Diagnosis:
1. Fungal infection of toe
2. Tinea Unguium (Onychomycosis)

Treatment:
1. Fluconazole 150mg 1t po qd for one month (#45)

11. VS#00278, 7F (Village I)
Diagnosis:
1. Severe Anemia

Treatment:
1. Draw blood for CBC, Lyte, BUN, Creat, Gluco, Peripheral smear, Reticulocyte count, ESR, LDH, Hb electrophoresis at SHCH

Lab result on June 15, 2008

WBC	=3.5	[4 - 11x10^9/L]	Na	=140	[135 - 145]
RBC	=4.5	[3.9 - 5.5x10^{12}/L]	K	=4.1	[3.5 - 5.0]
Hb	=9.9	[12.0 - 15.0g/dL]	Cl	=105	[95 - 110]
Ht	=38	[35 - 47%]	Creat	=38	[44 - 80]
MCV	=83	[80 - 100fl]	BUN	=1.4	[0.8 – 3.9]
MCH	=22	[25 - 35pg]	Gluc	=4.5	[4.2 - 6.4]
MHCH	=26	[30 - 37%]	LDH	=953	[225 – 450]
Plt	=356	[150 - 450x10^9/L]			
Lym	=1.4	[1.0 - 4.0x10^9/L]			
Mxd	=0.6	[0.1 - 1.0x10^9/L]			
Neut	=1.5	[1.8 - 7.5x10^9/L]			

Hypochromic 1+
Macrocyte 1+
Microcyte 2+
Schistocytes 1+

Poikilocytosis 1+
Dacryocyte 2+

Reticulocyte count: 1.9 [0.5 – 1.5]
ESR =12 [0 – 25]

The next Rattanakiri TM Clinic will be held in August 2008