Introduction:

Welcome to CUGH’s bi-weekly clinical case-series, “Reasoning without Resources,” by Prof. Gerald Paccione of the Albert Einstein College of Medicine. These teaching cases are based on Prof. Paccione’s decades of teaching experience on the medical wards of Kisoro District Hospital in Uganda. They are designed for those practicing in low resource settings, Medicine and Family Medicine residents, and senior medical students interested in clinical global health. Each case is presented in two parts. First comes a case vignette (presenting symptoms, history, basic lab and physical exam findings) along with 6-10 discussion questions that direct clinical reasoning and/or highlight diagnostic issues. Two weeks later CUGH will post detailed instructors notes for the case along with a new case vignette. For a more detailed overview to this case-series and the teaching philosophy behind it, see Introduction to “Reasoning without Resources”. Comments or question may be sent to Prof. Paccione at: gpaccion@montefiore.org

Note: If you would like to be notified when a new case is posted (along with instructor notes for the previous one), send your e-mail to Katherine Unger at kunger@CUGH.org.

About the Author:

Dr. Gerald Paccione is a Professor of Clinical Medicine at the Albert Einstein College of Medicine in the Bronx, New York. His career has centered on medical education for the past 35 years – as a residency Program Director in Primary Care and Social Internal Medicine at Montefiore Hospital, and director of the Global Health Education Alliance at the school. He has served on the Boards of Directors of Doctors for Global Health, Doctors of the World USA, and the Global Health Education Consortium. Dr. Paccione spends about 3 months a year in Uganda working on the Medicine wards of Kisoro District Hospital where he draws examples for the case studies.

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A 19 year old woman from Northern Rwanda presents with a history of multiple “bumps” that had developed over the past 6 years in different parts of her body, and a concern that she may have cancer.

She first became ill about 6 years ago when, after feeling weak for some time, she presented with difficulty breathing climbing hills. She was told she had a problem with her heart and was treated with digoxin and Lasix. She had no orthopnea, PND nor edema at the time. She improved after about a week and returned home, although still felt weak. A few weeks to months later, she began noticing bumps and swellings in different places on her body. Most of the bumps were not tender, but some, as they slowly grew larger over months, became mildly tender to deep pressure. Other slight swellings later formed a “hole” (a skin ulcer), with minimal tenderness. The doctors at one hospital cut into one of the soft bumps on her forehead and some fluid came out but she was told that she should not have anything done to the other bumps. Since then, bumps have formed in different locations at different times often forming hard, knobby and crusted growths along both sides of her nose, the front of both lower legs, and more recently her left hand. The newest uncomfortable bump is on the front of her chest. The bumps, horns and ulcers ooze yellow fluid but haven’t recently for over a year.

She thinks she has had intermittent but not daily fevers. She feels very weak and has used a walking stick for the past few months. She has lost unknown amount of weight over the past few years and never had a menstrual period. She has no cough or problems with bowels or urine. She works, when she can, as a farmer.

She improved with medications during her initial presentation with shortness of breath 6 years ago, and doesn’t consistently take medication for her heart anymore. She has not received any treatment that improved the bumps, crusts or ulcers although papers she carries indicate that she was treated with courses of both ampicillin and doxycycline multiple times and occasionally hospitalized for up to a month and treated with antibiotics, all without effect.

Physical Exam: Cachectic young woman
T (max) x 2 days, 100.2 p.o.; HR 105 RR 20 BP 95/60 Wt: 30 kg Ht: 58 inches; BMI: 13.8

Skin: [SEE PHOTOS, face not included]
no petechiae, roth spots, splinter hemorrhages, etc.
R naso-labial fold under R eye 1x1.5 cm ulcer, and linear ulcer .5 x 1.5 cm under L eye, mildly swollen and tender, hard edges and center with horny protrusions
Anterior left aspect of sternum with approx. 5 x 5 cm area of bogginess, +1 tender to palpation
L. hand at ulnar aspect, enlarged, deformed, boggy to palpation with 2 thick horny projections, minimally tender/warm; and discreet non-tender 1.5 cm ulcer with hyperpigmented halo;
Tibias: bilateral anterior superior horny projections emerging from 1-2 cm ulcers, non-tender; partially surrounded by hyperpigmented halos
Eyes: fundi benign, without lesions; conjunctiva non-icteric; Mouth: no lesions, thrush, petechiae
Neck: no thyroid palpable; shoddy (<1cm) scattered cervical, axillary, inguinal LAD; no JVP or HJR
Heart: PMI forceful, brisk, 0.5-1 cm lateral to MCL, 9 cm from mid-sternum; S1,S2, regular; 4/6 murmur equally loud at LLSB and apex; pansystolic; radiating to axilla, no S3, S4;
Lungs: clear to auscultation and percussion bilaterally
Abdomen: soft, non-tender, not distended, liver 2 cm below LCM, span 11 cm; no spleen palpated
Ext: no clubbing or edema;
Neuro: Cranial Nerves, Motor, Sensation, Cerebellar WNL; gait, weak and unsteady

Tests: [SEE X-RAYS of tibia, hands, chest]; HIV: negative; CBC: WBC 5; Hct: 24; plts 299;

1. What is the clinical “frame” of this case i.e., the key features of the patient’s history and exam that the final diagnosis must be consistent with?

2. What patho-anatomic process is suggested by the clinical “frame”?

3. What is the probable significance and relationship to the present illness, of the heart murmur and “heart problem” diagnosis made on first presentation 6 years ago, weeks-months before these lesions appeared on her skin? Explain.

4. a) What is the differential diagnosis in this case, and the most likely diagnosis?
b) What are the key features of each of the diseases in the differential?
Defend your choice of the most likely diagnosis.

5. What tests are available in rural Africa to confirm the most likely diagnosis, and how accurate are they?

6. a) In general, what principles of empiric therapy should guide treatment?
b) What would be the drawback of treating multiple illnesses at once in this patient?
c) What strategy would you choose in caring for this patient and why?