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 Jillian Morgan at jmorgan@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.

Gerald Paccione, MD
Professor of Clinical Medicine
Albert Einstein College of Medicine
110 East 210 St., Bronx, NY 10467
Tel: 718-920-6738
Email: gpaccion@montefiore.org

CASE 20 – RECURRENT FEVERS

A 33 year old woman presents with her third bout of high fever and intense muscle pains in the past 5 weeks, and sudden paralysis of her face. She's a refugee mother of six fleeing war in the Congo, living now in a tent in the refugee camp near Kisoro with 3 of her surviving children and 6 others. She arrived at the camp last week after travelling through the Congo taking shelter in abandoned huts. Her life is broken now: her husband was killed, her oldest child has had a similar illness, and her youngest died of fever/malaria 3 weeks ago, despite quinine.

Each of her 3 episodes of fever started abruptly with intense headache and diffuse pain in her back, belly and joints. Malaria is common in her home village, and the first episode was cured with 3 days of chloroquine provided by a friend, begun on day 2 of illness. However, it came back abruptly with headache about a week later, this time also associated with cough, red eyes, and (according to her friend accompanying her now) mild confusion. She received quinine from a passing U.N. convoy, as did her child, and although her child died, she recovered. She has been mourning, fatigued and depressed but otherwise physically well this past week until 2 days ago, when she developed a high fever and headache again, with nosebleeds and a facial droop, and was brought to the hospital. There's been no rash, diarrhea, or change in urinary frequency or amount (although the urine has seemed "darker"); and no history of unexpected weight loss, prior pneumonia or frequent infections.

PE: Confused, coughing without sputum, complaining of body pain and headache
T 103 axillary HR 126, with ectopic beats; RR 24, shallow; BP 92/66
skin: 3-4 non-blanching, non-palpable purpuric areas 0.5-1 cm, on feet, palms, buttocks; no other rash seen;
conjunctiva: moderate suffusion; R eye subconjunctival hemorrhage; mild icterus

mouth: buccal petechiae, no thrush
neck: supple, no LAD; JVP 5 cm above angle Louis, sitting; + HJR elicited;
lungs: scant crackles at bases bilaterally
cor: PMI 1 cm. lateral to mid-clavicle; S3 in left lateral decubitus; 5-6 PCs/minute;
abd: hepatomegaly, 13 cm to span, 3 cm below cm and tender to percussion; spleen, soft, 2 cm below costal margin, non tender
neuro: oriented to name and place, not time, intermittently inappropriate affect, grossly non-focal except for peripheral 7th CN palsy (forehead and lower face paralysis);

1. What is the "frame" (i.e. key clinical features) of this case?

2. Why should the following tests be performed if available, and how should their results be interpreted? Urinalysis, Rapid Diagnostic Test for Malaria (RDT); EKG

U/A results:
Specific gravity 1.025; protein (-); heme (-), bilirubin +3, urobilinogen +2, leukocyte esterase (-), nitrites (-).

RDT results: negative

EKG results: voltage normal; QRS interval prolonged .10 with intraventricular conduction delay; PR interval prolonged .24; 2 PVCs noted out of 20 beats.

3. What is the significance of the findings (*both* positive *and* negative) on physical exam?

4. What is the *differential diagnosis* in this case and the *most likely* diagnosis clinically? What are the clinical pros and cons for each of the possibilities?

5. How can this disease be more definitively diagnosed in Africa?

6. What constitutes rational empiric therapy in this case?

7. The patient is treated with antibiotics, and one hour later develops rigors and intense anxiety with hyperventilation, a rise in BP, HR up to 150 beats/minute,

and the temperature climbs from 101 to 104. It lasts for 2-3 hours. In hour 4, the patient's SBP is 60. What happened?