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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CASE 50 – Coughing Blood III

A 56 year old man presents after coughing up blood for 2 days.

He works as a farmer, previously having worked seasonally in Kampala in his 20's and 30's. He has been drinking heavily "his whole life" but has never been hospitalized as an adult.

He was in his usual state of fully functional health until 5 days prior to admission when he felt weak, developed a high fever and shaking chills, vomited twice and had diarrhea (yellow, watery, 3-5 times/day). The following morning he awoke with progressively severe, left-sided chest pain without radiation that was worse with breathing. The next day (3 days prior to admission) he began producing white-yellow sputum tinged with blood, lost his appetite, and took to bed. The day prior to admission he began coughing up only blood and needed assistance to come to the hospital.

There is no history of weight loss, smoking, shortness of breath, chronic cough, prior loss of consciousness or seizures. He has not received an HIV-test.

Physical Exam:

Looks ill, tired, coughing up clots of congealed blood

BP: 140/75 HR 100 R32 T 99F oral Pulse Ox 86

Eyes: No conjuctival icterus; no pallor; Fundi: benign
Mouth: no thrush; dentition normal;
Neck: no nodes; thyroid normal; no JVP visible at 30 degrees
Lungs: left upper lobe anterior-axillary tubular sounds with crackles; otherwise clear;
Heart: PMI 5TH ICS, MCL; S1, S2 normal, no murmurs, rubs, gallups
Abdomen: liver span 13 cm, 3 cm below the costal margin, non-tender, no splenomegaly or masses;
Neurologic: normal cranial nerves, motor, sensory, cerebellum, gait

1. What is the "*frame*" in this case (i.e. the key clinical features from the history and physical that the final diagnosis must be consistent with)?

2. What is the clinical significance of the social-demographic context of the patient's illness, and the following features of his history and physical exam?

- **Pleuritic pain with fever, onset over hours**
- **Vomiting/diarrhea (yellow, watery, 3-5 times/day)**
- **RR 32**
- **T 99 p.o**
- **Copious bloody sputum**
- **Alcohol abuse**
- **LUL anterior-axillary tubular breath sounds**
- **axillary crackles/consolidation**
- **congealed bloody hemoptysis**

3. What is the most likely etiology of gross hemoptysis in this patient and why? Why are other possibilities in the differential diagnosis less plausible?

4. What tests would you do, how would you treat, and how would you determine the success of therapy?