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

Important note: We are developing an email distribution list of persons interested in the cases. This list will ensure that interested faculty receive timely notice of the next case and the instructor notes for the previous case, while reducing the frequency of announcements to CUGH and GHEC's full distribution lists. Please notify Jillian Morgan at jmorgan@CUGH.org if you'd like to be on the list.

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 4 – SHORTNESS OF BREATH

A 31-year old woman, a farmer with 4 children (ages 11 years to 5 months old), was in her fully active state of health until about 6 weeks ago when she began experiencing unusual fatigue while digging, accompanied by racing heart which slowed again when she rested. A week later she was short of breath walking the kilometer home, and the dyspnea progressed over the following 3 weeks. During this time she also noted increasing leg swelling, abdominal discomfort and distention and loss of appetite with early satiety. She stopped farming 2 weeks ago, and over the past week has awakened 3 times with dyspnea relieved by sitting. She's had no fevers, sweats, weight loss, cough, or chest or leg pain. Her childhood and all prior pregnancies were normal without complications. She was HIV negative one year ago.

Physical Exam: Young woman, with older son and husband attending, sitting upright in mild respiratory distress

B/P 105/60 with pulsus alternans to 88/50; HR 94; R 24, T 96
skin: over abdomen anasarca is evident (palpation leaves imprint); no rash;
conjunctiva: mildly icteric;
mouth: no thrush
neck: no lymphadenopathy; thyroid palpable, smooth, no bruit, not enlarged;
⊕ Jugular Venous Pulsation (JVP) to jaw angle when sitting
⊕ Hepato-jugular Reflux (HJR), which precipitates cough
no exopthalamus, proptosis, lid lag or peri-orbital edema
lungs: rales bilaterally, ~ 1/3 lung fields
heart: PMI 6th ICS, AAL, 12.5 cm from midsternum by percussion, and 3 cm in diameter lying supine
no RV lift, LV heave or ectopic impulses
↓ S1, S2 wide physiologic split,
⊕ S3 in left lateral decubitus position at apex with expiration
⊕ S3 subxiphoid with inspiration
Grade 2/6 holosystolic murmur apex radiating to the axilla, medium pitch
abdomen: liver decends 5 cm below costal margin, smooth edge without nodules, tender to percussion,
slight distention, possible shift; no spleen or masses palpated;
rectal guaiac Θ
legs: 3+ edema to mid-thighs, 4 mm depression that remains indented for >60 seconds
neuro: normal

QUESTIONS

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

2. **Explain the significance of each of the relevant Physical Exam findings?**

3. **What is the *physiologic process* in this case? How certain can you be and why?**

4. **What is the *differential diagnosis* and the *most likely* diagnosis?**
   How prevalent, *in Africa,* is the most likely diagnosis in this case?

5. **What is the prognosis for this patient?**

6. **How should she be treated and what are the risks of therapy?**
