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 11 – RECURRENT SEIZURES

14 year old girl presents to the hospital after her family saw her lose consciousness and shake all four extremities for many minutes.

Over the past few years this young adolescent girl has had increasing difficulty in school, and over the past year has complained of poor vision, "right worse than left", and intermittent headaches. About two weeks ago, she had the first episode of "shaking" witnessed by her mother who immediately took her to a traditional healer. She was thought to be "possessed" by the same demon that possessed her older brother years before, received a special herbal remedy and an exorcism, and was subsequently well.

Prior to this episode she had been without new complaints, in her usual state of health, and without fever. She was helping her mother prepare the meal for the family when, in the minutes leading up to the episode, she developed a blank stare and started picking at her clothes. Her body then stiffened up, she fell next to but not into the cooking fire, and started convulsing. The seizure lasted about 5 minutes, and after it stopped she was very drowsy and unable to move her right side for 15-20 minutes.

Her parents are farmers who raise "Irish" and corn, and keep some chickens and livestock. She is in the middle of 7 siblings. Her birth was normal and there is no history of head trauma, meningitis or cerebral malaria. Her older brother has had seizures for which he's been exorcised multiple times and hospitalized 3 times. He is usually non-adherent to phenobarbital treatment because of the drowsiness it causes.

PE: Looks well-nourished, is in no distress, but seems tired
BP 110/80 RR 16 T 98.6 HR 80
fundi: normal, without papilledema, hemorrhages, exudates; conjunctiva: normal, no icterus
skin: normal except for 4 scattered, non-tender subcutaneous nodules arms and chest, .5-1.5 cm, freely mobile (chronic)
neck: supple, no LAD
lungs: clear
heart: PMI not displaced, normal; S1, S2, no murmurs
abd.: benign; no hepato-splenomegaly
neuro: oriented x3; motor, sensory, reflexes, normal;
CN: intact, except for decreased acuity R visual field > L; PERRLA, EOM intact

QUESTIONS

1. What clinical features in this patient's history and exam are relevant to the differential diagnosis? Explain briefly the potential relevance of each feature you identify.

2. What is the differential diagnosis of seizures in Africa?

3. What is the most likely diagnosis in this case? Why?

4. Is definitive diagnosis of this disease possible in rural Africa? Explain.
How certain can you be of the diagnosis in this patient?

5. What additional information from the history (not provided in the vignette) would support the diagnosis? Which test, obtainable in many district hospitals, would support the diagnosis?

6. How would you treat the patient in the vignette? What are the challenges to treatment?

7. How would you work with community health workers to address this problem?