



Introduction:

Welcome to the 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 4-10 discussion questions that direct clinical reasoning and/or highlight diagnostic issues. A month 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

About the Author:

I’m a Professor of Clinical Medicine at the Albert Einstein College of Medicine in the Bronx, New York, where my career has centered on medical education for the past 40 years – as a past residency Program Director in Primary Care and Social Internal Medicine at Montefiore Hospital, and global health advisor and program leader at the school. I’ve served on the Boards of Directors of Doctors for Global Health, Doctors of the World USA, and the Global Health Education Consortium. I spend about 3-4 months a year in Uganda working on the Medicine wards of Kisoro District Hospital which, like most hospitals in the world that serve most of the world’s population, has (almost) no resources. "At the bedside", I teach Internal Medicine residents and medical students how to assimilate the elements of history, physical exam and epidemiologic probability into a diagnostic impression that, even without definitive testing, can lead to appropriate therapeutic strategies in the field.

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Case 61: Collapse in the Field

An 8 year old boy is brought to Kisoro District Hospital for high fever, headache and sore throat for 4-5 days.

He had been well, a student with good grades, until a sore throat and headache developed over a few hours while in class and he returned home from school early. At home he began to vomit.

His mother thought he felt “hot”, and acquired coartem for malaria from the health center. After 2 days of continued fever, intermittent vomiting and worsening sore throat despite coartem, the traditional healer diagnosed “gapfura” and performed “kumensha” or “crude tonsillectomy” (in which a stick was passed through the boy’s nose and, with the healer’s fingers probing the back of his mouth, his tonsils were scraped until they bled – expunging the spirit of the boy’s ailment along with the blood and pus). His fevers, sore throat and headache continued unabated the next day, he would not eat, developed watery diarrhea, abdominal cramps, some vomiting and a soreness around his buttocks that made sitting uncomfortable. His skin darkened according to his mother, and his hands and bottom of his feet seemed swollen. He had no cough. When he became too weak to walk by himself and intermittently was not making sense to his parents, he was brought to KDH on the 5th day of illness.

Physical Exam: Lethargic, ill-appearing boy.

BP 100/60; HR: 140 and regular; T: 104.2 oral RR: 22

Skin: dry and “rough” to feel, without obvious rash but with a suggestion of increased darkness/hyperemia around 0.5- 1 mm skin protrusions/papilla, most notable on lower abdomen and flexor surfaces of arms; linear petechiae noted in the inguinal crease, and hyperemia around sacrum; fine powdery flakes of skin on cheeks and nape of neck; no areas of overt cellulitis or inflammation noted;

HEENT: Mouth: 4 petechiae noted on palate; dried blood in swollen, erythematous tonsillar pillars with exudates in some tonsillar crypts; uvula midline; tongue deeply red with protruding punctate red papillae and islands of thick white coating;

Neck: supple in all directions; 2 tender 1.5 cm upper cervical nodes bilaterally; shoddy nodes elsewhere, < 1 cm, non-tender; thyroid normal; JV pulsations normal, but only seen lying flat;

Lungs: clear

Heart: tachycardic, S1, S2 normal; Gr 1-2/6 short systolic murmur at left sternal border; normal PMI

Abdomen: normal bowel sounds, no hepatomegaly, spleen tip palpable, non-tender; no masses, guarding or tenderness;

Extremities: normal joint mobility, no peripheral edema but palms and soles slightly swollen;

Neurologic: lethargic, responds appropriately but slowly, no focal signs; reflexes +2; gait wobbly but symmetric

1. What is the “frame” of this case from the *history* (i.e. the *key* clinical features the final diagnosis must be consistent with)?
What is the clinical significance of each feature?

2. What is the significance of the *physical exam* findings?
Are any combinations of findings associated with specific disease mechanisms?

3. What *non-antibiotic* treatment should be provided promptly?

4. What is the *differential diagnosis* in this case? Identify and describe the *principle clinical features* of your selections.
What is *most likely* diagnosis in this patient? Why is it most likely and what is its pathogenesis?

4. What frequent mistake do clinicians make in diagnosing the cause of fever in patients who have been previously treated for *gafura* with crude tonsillectomy?

5. What is the appropriate treatment for this patient?

6. If your diagnosis is correct, what other dermatologic manifestation will evolve over time?
In what other diseases is this later skin manifestation seen?