Cameroon Townhall for Healthcare Professionals

Meeting Minutes, June 5, 2021

Host: Cameroon Townhall for Healthcare Professionals

Date: June 5, 2021

Chair: Dr. Munoh Kenne Foma

Co-Moderators: Elvis Ndansi (lead moderator), Dr. Christelle Jouego Tagne, Louisa Viban, Dr. Bryan Tegomoh

Guest Speaker: Dr. Nchang Taka, MD; board certified in internal medicine, cardiovascular disease and interventional cardiology; FSCAI, Interventional cardiologist, USA (interventional cardiology fellowship, University of Kentucky, Bowling Green; cardiology fellowship, University of Mississippi Medical Center; internal medicine residency and chief residency, Morehouse School of Medicine at Grady Memorial Hospital; MD, University of Yaounde I)

Distinguished Guests: An epidemiologist researching cardiovascular disease in Africa, A physician in a rural district of the East Region, formerly at the Yaounde emergency centre, A doctor in Cameroon working on diabetes and NCDs, A cardiologist in Buffalo, USA, Dr. Obadia Mfuh Kenji (laboratory scientist), Dr. Clarence Pingpoh (cardiac surgeon, Germany), A physician in Georgia, USA, A pharmacist and pharmacologist, A laboratory specialist covering remote sites in Alberta and the Northwest Territories, Canada

Title: Heart Attack: The Hidden Pandemic in Cameroon and Africa

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Agenda Items:

1. Welcome and opening remarks by the moderators
2. COVID-19 update by the Chair, Dr. Munoh Kenne Foma
3. Presentation by Dr. Nchang Taka on "Heart Attack: The Hidden Pandemic in Cameroon and Africa"
4. Discussion and Q&A
5. Closing remarks and next meeting

Opening Remarks:

- Elvis Ndansi noted that the Town Hall had celebrated its first anniversary two weeks earlier, that it now meets every fortnight, and that it was becoming bilingual, with a French-language co-moderator joining the team.
- The Chair gave a COVID-19 update: India's second wave easing, close to 200 million cases worldwide and about 2 billion vaccine doses given, with low and uneven access in Africa. In Cameroon cases and deaths were falling after the second wave but vaccine uptake was poor; the Centre and Far North regions were doing best, and parts of Adamawa and the conflict-affected North West and South West had not given a single dose. At the current pace he estimated it would take 10 years to vaccinate Cameroon. AstraZeneca, Sputnik (through the private sector) and Sinopharm were available, and hydroxychloroquine had been withdrawn from the Cameroon protocol.
- The Chair said he and Dr. Taka had been friends since secondary school, were posted together to Bamenda Regional Hospital after medical school, and that Dr. Taka helped him start his US career.

Presentation Points:

Presentation by Dr. Nchang Taka: "Heart Attack: The Hidden Pandemic in Cameroon and Africa"

1. You cannot see what you do not know:

Dr. Taka said that in about two years at Bamenda Regional Hospital he never diagnosed a heart attack. He recalled a woman in her 50s or 60s who came at 2 a.m. with unusual 'acid reflux' and a sense of impending death; the hospital's only ECG machine was locked in the director's office at night. He used the story of the emperor's new clothes to ask whether heart attacks are rare in Cameroon or simply not being looked for.

2. Missing data:

Cameroon data from 2013 put cardiovascular disease prevalence at 4.7 percent but cardiovascular mortality at 11.6 percent, and a 2020 report gave no breakdown for ischaemic heart disease. In other sub-Saharan countries ischaemic heart disease accounts for about 25 to 50 percent of cardiovascular disease, and among Black Americans over 50 it causes about 23 to 31 percent of deaths. He concluded that many cases in Cameroon are being missed, often labelled as reflux or pneumonia, especially in women and people with diabetes.

3. Stable disease and heart attack:

Ischaemic heart disease means blockage of the heart arteries. Stable disease causes predictable symptoms on exertion; a heart attack happens when a plaque ruptures and a clot partly or fully blocks the artery, causing sudden symptoms at rest. Both partial (NSTEMI) and complete (STEMI) blockage are emergencies.

4. The ECG is the key tool:

Diagnosis rests on symptoms, the ECG and troponin, with coronary angiography as the gold standard. He stressed that a STEMI can be diagnosed from symptoms and the ECG alone, without troponin, and that repeating the ECG after 10 minutes and looking for changes helps even non-specialists. Used carefully the ECG has high sensitivity or high specificity depending on the criteria.

5. Treatment possible in Cameroon:

First steps are a single 81 mg aspirin and an ECG. Where no catheterisation lab is available, thrombolysis is the main option, and he cited the CAPTIM study showing that thrombolysis within about two hours of symptom onset gives survival comparable to angioplasty. Low molecular weight heparin, beta blockers, ACE inhibitors and high-intensity statins (citing the JUPITER trial) prevent recurrence, and all are available in Cameroon.

6. Finding disease before the heart attack:

For stable disease he proposed exercise ECG stress testing (sensitivity about 68 percent, specificity about 77 percent), which needs only an ECG machine, a treadmill and a computer, to identify patients for preventive treatment. He called for ECG machines in emergency units, clear protocols and training.

Discussions and Q&A Session:

- **In a rural hospital five hours from Shisong, should a heart attack be referred or managed locally? (Elvis Ndansi)** Dr. Taka favoured training local doctors and nurses with a chest pain protocol: ECG, aspirin, then thrombolysis with standard doses, and transfer afterwards if needed (rescue PCI). Delaying to reach a distant catheterisation lab loses the benefit after about two hours.
- **Comment from a physician in Los Angeles** He stressed standard protocols in every hospital and continuing medical education, noting that doctors who have seen malaria thousands of times may send home a diabetic patient with an atypical heart attack.
- **Troponin or BNP, thrombolysis versus PCI, and when to use ACE inhibitors and beta blockers? (a doctor in Japan)** Dr. Taka said troponin matters as a rise and fall over

three to six hours, but the ECG is more important. Thrombolysis early, then transfer, is supported by evidence. After the acute event, statins prevent plaque rupture, and ACE inhibitors help the heart recover; the only absolute contraindication is bilateral renal artery stenosis, apart from allergy.

- **Were we trained to treat heart attack as a priority, and why are ECGs absent from emergency units? (Chair)** The Chair said that as a hospital director he could have bought an ECG for about half a million FCFA but did not think of it, and that as a pathologist at CHU he never received a troponin request. Dr. Taka agreed the gap is priority and protocols, not tools, and said about 80 percent of sudden deaths are cardiac.
- **Patients arrive late, there are no ambulances, and ECGs are hard to read. What can be done? (a co-moderator)** Dr. Taka said a patient still in pain is still having a heart attack, so treatment still helps. Non-cardiologists need only recognise obvious ST elevation and changes between ECGs, and handheld echo devices will help in future.
- **Is point-of-care troponin useful? (Dr. Tegomoh)** Dr. Kenji and the Canadian laboratory specialist said point-of-care tests (for example SD Bioline and i-STAT) exist and are used at remote Canadian sites, but should be validated locally before use. Dr. Taka said if he had to choose between troponin analysers for 10 regional hospitals and ECGs for 30 district hospitals, he would choose ECGs.
- **How much does an ECG machine cost, and is there life support training in Cameroon? (Elvis Ndansi to a doctor working on diabetes in Cameroon)** She said a standard machine costs about 2 million FCFA. She said the ECG is treated as the cardiologists' preserve and should be part of every clinical examination, and that a BLS and ACLS programme started by the Faculty of Medicine in Yaounde appears to have stopped.
- **Is coronary heart disease really a problem, given that field data show under 10 percent of medical admissions? (an epidemiologist researching cardiovascular disease)** Dr. Taka said the prevalence cannot be assumed to be low when diagnosis is not being made. The Chair said hypertension and diabetes were once thought absent from Africa only because no one measured them, and that his father died of a sudden cardiac death in Bamenda without an ECG. A cardiologist in Buffalo added that rising hypertension and diabetes must lead to more coronary disease.
- **Comment from a rural physician in the East Region** He said the Korean-supported emergency centre in Yaounde thrombolysed STEMI patients with alteplase under strict protocols, but one vial cost about 1.5 million FCFA, out of reach for most. In his rural hospital he can give only aspirin, oxygen, beta blockers and refer. Dr. Taka

and the Buffalo cardiologist said thrombolytics should not cost that much and that government procurement could lower the price.

- **Comments from Dr. Clarence Pingpoh and two participants** A physician in Georgia urged educating families and churches that chest pain is not always reflux, and offered remote ECG reading by diaspora cardiologists. Dr. Clarence Pingpoh stressed prevention through treating hypertension and diabetes and asked for practical action. A pharmacist and pharmacologist called for continuing education and use of ECG machines discarded by US hospitals.

Call to Action and Closing:

- Elvis Ndansi proposed an open-source training resource by diaspora experts as a possible Town Hall project, and urged members to donate an ECG machine to their village health centre.
- Dr. Pingpoh offered to present on cardiac surgery and structural heart disease, and the Chair accepted.
- Dr. Taka invited members to join his projects and mentioned amputations in Cameroon as another topic he would like to address.
- The next session was announced for a fortnight later.

Next Meeting

In a fortnight (June 19, 2021): sickle cell disease, World Sickle Cell Day.

Recording: https://www.youtube.com/watch?v=r4qcZjrn0S0

Submitted by: Co-Moderators, Cameroon Townhall for Healthcare Professionals