SUDAN HEART SOCIETY ACTIVITIES

Sudan Heart Society Niyala Mission: Achievements and Challenges

قافلة مهيرات القلب الى نيالا

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Introduction:

Sudan Heart Society (SHS) organized a medical mission to Niyala , capital of South Darfur State located 1096 kilometres to the West of Khartoum in the period Jan 14-16/2016 in collaboration with a charity "Bab Al Riyan"

Niyala population is nearly 3 million and is considered next to Khartoum in population density. Huge numbers of patients are referred from Darfur regions with variable cardiac diagnoses; most important is rheumatic heart disease (RHD). Of RHD patients, 20% come from Darfur region and typically present with severe valve damage (1, 2). Other cardiac patients also present late obviously due to the far distance and the high expenses of travel.

Medical Services in Niyala:

There are 3 main hospitals. The main one is Niyala Hospital where there are 31 consultants including 5 physicians, 4 pediatricians and 8 surgeons. There are 2 physicians interested in cardiology with some experience in echocardiography (echo), one adult and one pediatric. There is a private diagnostic center within Niyala Hospital with facilities for echo (one General Electric Vivid 3 machine) ,ultrasound and one CT scan, all functioning well. Besides, there are X-ray and laboratory facilities capable of doing most basic investigations including INR testing.

Importantly, there is no functioning intensive care unit (ICU) , not a single monitored bed, no defibrillator in action in Niyala.

When the team investigated further, it was found that ICU equipment is available but for some logistic reasons it has not been put into action.

Mission Objectives:

1. Evaluation of patients with cardiac problems (clinics)
2. Echo screening of children in camps for the displaced people for sub-clinical rheumatic heart disease (RHD).
3. Training of physicians and nurses
4. Health promotion and education
5. Evaluation of the cardiac services including the ICU and discussion with the local authorities and SHS members the ways to help.

Mission Personnel:

1. Dr.Sahar Elfadil (Consultant Adult Cardiologist)

2. Prof. Sulafa Khalid M Ali (Consultant Pediatric Cardiologist)
3. Dr.Selma Beshir (Adult Cardiology Fellow)
4. Dr.Amina Moawia(Adult Cardiology Fellow)
5. Dr.Azza Mohamed Omer(Adult Cardiology Fellow)
6. Dr.Dina Hassan Alfandar(Adult Cardiology Fellow)
7. Dr.Sara Bushra (Pediatric Cardiology Fellow)
8. Sister Sabah Ahmed (Echo Technician)
9. Mutasim Omer Abdalla (Photographer)

Of note, all the medical personnel were females therefore the mission was called**قافلة مهيرات القلب**

Local team from Niyala:

Adult Cardiology: Consultant: Dr.Elsheikh Ibrahim, registrar: Dr.Azeem Eldeen and medical officer: Dr.Ameena Abo Gharda.

Pediatric Cardiology: Consultants: Drs.Khalid Al Awad and Bahja Abbo. Pediatric medical officers: Drs. Hassan Elsadig, Abdelrahman Ali, Khalid Kholani and Najlaa Nasr.

Achievements during the Mission:

The mission was received at the airport by the Minister of Health, officials and Physicians of Niyala Hospital. The work started immediately at Al Haj Atta al Mannan Center.

1. Clinics:

Adult Clinics:

Three clinics with a total of 450 patients including clinical evaluation, echo and ECG. Eleven patients referred to Khartoum for further management were completed

Paediatric Clinics:

Two clinics including 40 patients (clinical and echo examination). Ten patients were referred to Khartoum for cardiac catheterization or surgery.

2. Hand – Held Echo screening:

This was conducted at Ottash Camp for Displaced People where 214 children were screened by the pediatric team (Drs.Sara Bushra Domi and Bahja Abbo) using hand held echo machines (V scan- GE) (Photo 2). These V scans were donated to Sudanese Children Heart Society by the Sudanese American Medical Association (3,4). Five cases of subclinical RHD were found fiving an estimated frequency of 20 per 1000, compared with an incidence of acute rheumatic fever and clinical RHD of 11 per 1000 reported in 1992 in Khartoum by Siddiq Khalil et al (5). This finding is similar to other reports of subclinical RHD in many countries including, Uganda and India. (6,7)

3. Lectures: Five lectures were delivered, attended by 52 physicians. Lectures included: chest pain (by Dr.Sahar Elfadil), heart failure by Dr. Azza Mohamed Omer, ECG Interpretation by Dr.Dina Alfandar,

Hypertension by Dr.Amina Moawia and RHD Control by Sulafa Ali.

Books: Guidelines for RHD management Books were distributed to physicians. (8)

-A lecture to Nurses and Health Promoters: a lecture about RHD (by Sulafa Ali) was conducted with 45 attendants .Posters and pamphlets about RHD were distributed with special emphasis on primary prevention as a new concept in RHD control in Sudan (9) (Photo 3)

-Health Promotion: An awareness session was given about RHD at Ottash camp to parents and teachers (20 people attended) . Awareness posters and pamphlets (500 each) were distributed in the camp and nearby camps with the help of World Vision Organization.

4. Meetings:

-Meetings were held with the Minister of Health, Niyala Hospital and Al Hag Atta Al Mannan Center Directors and consultants to discuss the needs of cardiac services in Niyala.

-A meeting with Niyalaa senior society members was conducted to explain the objectives and achievement of the visit.

5. Recommendations:

The team discussed with Niyala health officials the needs and priorities for Niyala Cardiology Services which were identified as:

1. Niyala Hospital Intensive Care Unit (ICU): which is urgently needed, the project follow up was assigned to Dr.Sahar Elfadil

2. RHD Control program consolidation which will be followed by Prof. Sulafa Ali.

6. Outcomes of ICU and RHD Projects:

ICU:

-The immediate action of the Sudan Cardiology Group (a group on social media) was impressive with donations from all over the world.

-An action group was formed that assessed the current buildings and equipment. Renovation of building and operation of available equipment was achieved..

- Two medical officers were trained in ICU at the Sudan Heart Center so the ICU is now ready to function. (Photo 4)

RHD Program:

-An action group from Darfur regions (as well as Kordofan and White Nile) was formed for discussion of needs and sharing of awareness and educational materials.

-Printing of 5000 posters and pamphlets was accomplished with a grant from Al Waad Drug Company. RHD Control lectures were inserted into the on-going programs of the Ministry of Health and in this way over 1000 health providers (physicians, nurses, midwives , health promoters) were trained in RHD Control with special emphasis on health workers of the Camps for Displaced People. This great effort was led by Dr.Khalid Al Awad, Consultant Paediatrician (Photo5)

A research project (funded by Ministry of Higher Education) is starting in Niyala in August 2016 to measure the prevalence of subclinical RHD. Training of 2 medical officers from Niyala on the use of hand – held echo was conducted in Khartoum in February 2016.

In conclusion: a 3 day mission by SHS to Niyala achieved important goals including patient evaluation, ICU launching and RHD Control program consolidation. Similar missions to other distant states are recommended.

References:

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5. Ibrahim-Khalil Siddiq, Elhag M, Ali E, Mahgoub F, Hakiem S, Omer N, Shafie S, Mahgoub E. An epidemiological survey of rheumatic fever and rheumatic heart disease in Sahafa Town, Sudan.J Epidemiol Community Health. 1992;46:477-9.
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9. Sulafa Ali. Rebuilding the Rheumatic Heart Disease Program in Sudan GLOBAL HEART, 2013; 8: 285-286.

The Medical Team and the Sponsoring Charity Members
Sitting: from right to left: Drs.Dina Hassan, Sahar Elfadil and Sulafa Ali
Standing: Dr.Sara Domi, Bab Al Riyan Charity Members, Dr. Dr.Amina Moawia, Sister Sabah Ahmed, Dr.Azza Mohamed.



Drs.Sara Bushra and Bahja Abbo using hand – held echo machines in Ottash Camp



RHD posters distributed to Health Promoters in Niyala Hospital



Niyala ICU ready to operate



Drs.Khalid Al Awad and Bahja Abbo giving an RHD Session to Medial Assistants in Niyala

