CARDIO MALIK Sumera

Elective Report

1. *Discuss how prevalent cardiovascular conditions are among kashmiri population. Also discuss what age group commonly present with such conditions in that region in comparison to the age group affected in UK.*

2. *What are the immediate and long term cardiology services offered to such patients. Discuss how the delivery of such services differ for patients with similar conditions in UK.*

3. *What health precautions are necessary to be taken by an overseas doctor before gaining any medical experience in Kashmir.*

4. *Discuss how your learning of cardiovascular field has improved by working in Kashmir. How will you put this experience into practice while dealing with similar cases as a foundation doctor in UK.*

1. I carried out my elective in Azad Kashmir where I observed patients with various cardiovascular conditions. Most patients that are admitted into the hospital are between the age of 40 to 60 and are given non-invasive treatment.

Cardiovascular conditions are caused by the reversible and irreversible risk factors. The irreversible risk factors are: Age, Gender and family history whereas reversible factors are: smoking, diabetes, rheumatic fever, alcohol, unhealthy lifestyle and hypertension. In Kashmir, among the risk factors mentioned, rheumatic fever which occur 20 days after streptococcal infection is very prevalent among the Kashmiri population due to inadequate facilities. This condition is easily treatable with antibiotics and hence is very rare in UK. However, patients in Kashmir suffer from murmurs and endocarditis as a consequence of rheumatic fever. That's why the incidence of flare up with repeated streptococcal infections is greater in Kashmir.

Other than that, as these developing regions don't have advanced medical equipments, patients don't receive the benefits of life saving secondary prevention measures despite knowing their diagnosis of rheumatic fever. Hence, many patients in Kashmir suffer from conduction problems such as atrial fibrillation and heart valve problems.

In comparison to UK population, young patients are frequently admitted with stroke, myocardial infarction and heart failure due to the reversible risk factors. For instance, Pakistani occupied Kashmir is one of the 10 countries in the world with the fastest increase in the number of diabetics. Similarly, dyslipdiaemia which accounts for 4.4 million global dealth annually is also prevalent in this region. Both these risk factors impose a huge burden on the health care services in Kashmir region. Apart from that, most patients over the age of 50 in Kashmir suffer from hypertension which annually causes about 7.1 million deaths globally.

According to one study, only 4% of BP and 3% of DM is controlled in Azad Kashmir. That is why the rate of thromboemblic event is very high among Kashmiri population.

2. Although many conditions of which rheumatic fever is the prime example are prevalent in Kashmir, the hospital system in treating patients with cardiovascular conditions is similar to UK. This 84 bed hospital department provides non-invasive treatment to patients with cardiology conditions and is well equipped in providing

basic life support. The hospital staff is well trained in treating arrhythmias or cardiac arrests (as they get 7 to 10 cardiac arrests per month). For example: one patient came in an emergency complaining of resting chest pain. On admission, all vitals were immediately performed, a blood sample was taken which showed her troponin to be negative. All patients who come in an emergency have an ECG done to rule out MI (as the hospital gets about 6-7 cases per month), hence an ECG was also performed on her which showed ischemic changes in her heart (ST depression). To stabilise her condition, she was immediately given IV nitrates after which she was administered oral nitrates. Later an Echocardiogram was done on her which appeared to be normal. Once she stabilised, she was given a follow up appointment of 14 days and discharged. However, if patient's condition deteriorates then they are sent to the capital of Pakistan for invasive treatment.

Similarly, if a patient comes in with an MI (STEMI), they are immediately thrombolysed with streptokinase. However, in comparison to UK, Kashmir is a developing state, therefore they cannot afford tPa for every MI patient. Hence, due to inavailability of tPA, patients in whom SK is contraindicated, they are send to the capital of Pakistan which can delay the stabilisation of patients and results in their mortality.

In terms of the long term management of patients, all medications which are prescribed in UK are also prescribed in Kashmir. For example: if patient is stabilised after an MI, they are discharged with aspirin, clopidogrel, statin,, beta blockers for 2 years and GTN. Similarly these patients are also given a follow up appoitment and are seen within 2 weeks of discharge.

In UK, NHS provides service to patients. In Kashmir, I noticed that patients pay 5 rupees which although in UK currency in only 5p but in Paksitani occupied Kashmir, people are extremely poor and paying even 5p is a lot for them.

3 People living in Kashmir are very poor and due to living in unhealthy conditions, passive smoking is very common , therefore, lung conditions and hygienic related conditions affect most Kashmiri population. These patients are also not well educated which is why they apply unhygienic conditions which pose them at high risk of getting Hepatitis B and C. However, HIV is uncommon. Therefore when a patient is admitted to hospital, a blood sample is taken from them for Hep B and C test and if its positive then its written on board for staff to be aware of patient's status. This hospital is internationally recognised and many doctors carry out their FY training here however, one needs to have a full occupational health check before travelling and commencing their duty here as doctor. For example, an overseas doctor needs to have their Hepatitis B and C status checked. They also need to be aware that people are extremely poor that's why they suffer from conditions which are well controlled in UK such as TB, hepatitis and food poisoning. Therefore, they need to have appropriate preventive measures beforehand.

4. Overall, 86 percent of the global burden of CVD are in the developing countries. In Kashmir, the hospital where I worked see roughly 62 cardio patients on average and the mortality rate due to MI, stroke and heart failure is about 6 -7 patients per month. From this elective, I have learnt that these conditions can easily be controlled by giving proper health education and by managing their risk factors early. Kashmir is a very poor area where due to ill education displaying posters for patients to educate them about the health issues is not a good option. Secondly, a lot of patience and determination is required to educate these people in this area as they are used to living in un-hygienic conditions and its hard to motivate them to adapt to healthy living style.

Although I will be working as a FY1 in UK, I need to be aware that I will be getting patients who have migrated from these regions aswell. I feel that my knowledge has improved in terms of what conditions are more prevalent in that area and it will help me in managing similar patients in UK where all the advanced equipments are readily available. I will also make my patients aware of risk factors which are easily reversible but are still very common among the kashmiri population. For example: Cigarette consumption constitutes the single most important modifiable risk factor for coronary artery disease and is the leading preventable cause of death. However, despite knowing that smoking is harmful, people still smoke or inhale smoke passively and suffer from smoking-related complications.

Overall, I can use this experience and teach patients the need to see the doctor immediately if they experience any symptoms. For example: many patients suffer from shortness of breath as one of the symptoms of heart failure in the Kashmir region but due to lack of knowledge about the condition, they don't feel the need to see the doctor.