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Elective Assessment

Objectives:

1. **What are the prevalent cardiovascular problems seen in a typical Indian hospital? How does this compare to the UK?**
2. **How are medical services, especially cardiac services, organized at CMC Hospital? How does this compare to a typical NHS hospital? Consider healthcare funding.**
3. **Compare management delivery of cardiovascular services at an Indian Hospital and compare to a typical NHS Hospital.**
4. **What have I learnt about management of common cardiovascular problems? Has my perspective in the specialty evolved? What are my thought as to a future in this specialty?**

The total Indian population in 2012 according to WHO was 1,240,000,000. Life expectancy at birth for females was 68, and for males it was 64 years old. This is comparable to the UK which had a total population of 62,783,000 and life expectancy at birth for females was 79 and 83 years old for males. On the Cardiology Ward I was surprised by the amount of patients who were in their early thirties and had already had a serious Myocardial Infarction. This is rare in the UK unless they have an underlying genetic condition. The most prevalent Cardiovascular problems seen at the CMC, Ludhiana Hospital are Coronary Artery Disease, Dilated Cardiomyopathy secondary to Ischemia, and Rheumatic Valve Disease. Tuberculosis is extremely prevalent in India and is an important differential diagnosis in a patient presenting with pericardial effusion as it's possibly due to Tuberculosis Pericarditis. In the UK however, this diagnosis would not be very high on the differential. Interestingly, as the life expectancy is increasing slowly in India, the Cardiologists are seeing a slight increase in the amount of Aortic Sclerosis due to calcification of the valve, which is extremely prevalent in the UK in our ageing population. The prevalent Cardiovascular problems seen in the UK are fairly similar but probably Heart Failure (acute and chronic), Ischemic Heart Disease and Arrhythmias are the main conditions. The main Cardiovascular risk factors in India were mainly Diabetes, Hypertension and Diet. The UK obviously share the same risk factors that were just listed, along with smoking.

Another interesting cardiovascular condition that is prevalent in India is a condition referred to as Coronary Artery Ectasia (CAE). Before my placement I had never heard of this term but it is very common amongst the Indian population. CAE represents a form of atherosclerotic coronary artery disease, seen in some patients undergoing coronary angiography. The presence of ectatic segments look like dilated areas along the coronary arteries causing sluggish blood flow and can promote exercise-induced angina, thrombus formation and myocardial infarction, regardless of the severity of stenotic lesions. The management of CEA involves lifelong anti-platelet drugs. I found this subject extremely interesting and it has prompted me to do further reading around this subject. In the UK CAE is rarely seen on patients undergoing coronary angiography, but mainly atherosclerotic coronary artery disease causing stenotic lesions is evident during angiography.

In regards to the delivery of management in CMC Ludhiana, it was very similar to the UK. I specifically looked at the ST Segment Elevation Myocardial Infarction (STEMI) protocol. The main pathway of patients presenting in casualty with a STEMI was similar to the UK: the on-call

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Throughout my elective placement I have learnt about management of common cardiovascular problems which is largely dependent on the resources available at the time and the medical team involved. Overall in Ludhiana Hospital the protocol of common cardiovascular problems did not vary that much from UK based hospitals. However, there were slight differences in managing cardiovascular problems when I visited a rural Hospital in Manali, which was mainly due to limited resources and limited trained nurses. For example I witnessed a nurse trying to cannulate a sick patient which required several attempts using the same needle at different sites. Putting the patient at an infection risk would not be tolerated in a UK based hospital or at the CMC Hospital in Ludhiana, mainly because we have the facilities to use another cannula. However in the rural setting every cannula counted and they couldn't waste another one for the same patient.

Reflecting on my overall elective experience, especially regarding Cardiology, my perspective on the specialty has changed slightly in the sense that this elective highlighted the importance of primary care and public health. The importance of lifestyle changes can have a massive benefit on a patient's life. In India I personally felt this was not practiced that well.

Pursuing a career as a Cardiologist is still a potential career option as I thoroughly enjoy this field.