Role of Non-Invasive Techniques in Cardiology

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In the underdeveloped countries which are having more population & poverty, poor heart patients are worst sufferers. When they get heart ailment, the advanced medical centers and adequate investigation facilities, are not available or out of common men reach. In this state priority should be given on early detection and prevention of heart disease by a method which should be neither hazardous nor money consuming and in easy reach to patients.

In this advanced scientific era non-invasive techniques are getting popularity in helping the physicians as well as patients. This has helped a lot in cardiology. In it without surgical intervention, accurate information about size, structure, functioning and hidden pathology of heart can be obtained.

Many complex abnormalities of the heart can be diagnosed swiftly and safely by these techniques. Apart from E.C.G. which is serving cardiology since long other non-invasive techniques are Holter Monitoring, Computerised treadmill exercise and Echo cardiography etc.

In Holter Monitoring E.C.G. of a patient with a suspected heart problem is continuously recorded on a tape recorder fitted on the patient’s body. The patient is asked to carry on his usual activities and called back to Hospital after 24 to 72 hours, depending on the capacity of the tape. The tape is studied on a computerised system along with record of activities kept by patient. Computer tells about missed heart beats or any other abnormality. Data are checked by experts for diagnosis.

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In computerised treadmill patient is made to walk on a motorised belt. The speed and uphill motion of the belt is changed to gauge the state of his heart during different grade of strain.

Continuous monitor and data give vital clues for diagnosis of heart ailment while under different types of stress and strain.

In echocardiography, with help of heavy frequency sound waves, very accurate information about the size of chamber of the heart, structure and functioning of the valves, presence or absence of blood clot, fluid in pericardium, etc can be obtained. This test can be safely performed at seriously ill patients at bed side too.

By providing facilities of Non-invasive cardiac laboratory in under-developed countries, poor cardiac patients can be helped a lot. They can't afford for getting these facilities which are only available in very few centres. Non-invasive methods not only help in prevention but timely diagnosis makes radical cure at right time possible.