



Editorial

Where there is a will there is a way

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World Health Organization (WHO) in its recent publication illustrated that about 56.9 million people died worldwide in 2016 of which 54% were died due to 10 important causes. Among these the top most cause is heart diseases and stroke. Other causes are infection of lower respiratory tract, inflammatory lung diseases, Alzheimer's disease, bronchitis, lung cancer, diabetes mellitus, diarrhoea, road traffic accident and tuberculosis.

In this illustration 'financial inability' is also described as a cause of death. In the least developed countries of the world poverty is also a cause of death for low income group especially due to communicable diseases, pregnancy complications and malnutrition.

In other side 78% causes of death are due to non-communicable diseases which is observed maximum in least and mid developed countries worldwide. But it is alarming that in our country first cause of death is heart diseases along with stroke and cancer that are very important among the second and subsequent causes. Suffice it to say, our people has changed their food habit a lot. Fast food, Junk foods are their favorite foods which are full of saturated fat and sugar. As a result death rate is raised abnormally due to heart diseases and stroke in our country.

Death is also caused significantly due to cancer and other non-communicable diseases in Bangladesh. In case of cancer cause is almost unknown and it is not diagnosed in proper time. If the patient is not treated early after early diagnosis patient cure is not possible in maximum cases. Cancer detection in proper time is not possible in our country for less capability and less awareness of the people.

For huge expenditure in detection and lengthy procedure, majority of cancer sufferers do not approaches to the physicians in early stage. And when they approaches to a doctor then it is too late. Its consequences are very bad and majority of which ends in painful death of the patient along with a lot of sufferings of the patient's family.

To combat this bad consequences of the cancer patients few researchers of Shahjalal University of Science and Technology (SUST) have come forward. This team of researchers has invented a low cost technology to screen out the presence of cancer

in the body within just five minutes by analyzing the blood sample of the patient.

Maximum expenditure of this cancer screening procedure will be Taka 500 only. The cost of the prototype desktop sized device for the test would be around Taka 25,000. Interesting matter is that the researches who invented this process are all Bangladeshi and the University where they performed the experiment is also a Bangladeshi University. The total research activity was done under the leadership of renowned Professor Dr. Yasmeen Haque, a teacher of department of Physics of SUST.

This innovation has been presented to a press conference organized by HEQEP and the education ministry in the International Mother Language Institutes auditorium on 5th September 2018 where Education Minister was the Chief Guest. Prof. Dr. Yasmeen Haque presented the innovation to the audience as the chief of the research group by an excellent power point presentation.

According to the presentation, a project was taken in 2016 at SUST highlighting "Innovative Biomarker Detection System Using Nonlinear Optics" under Higher Education Quality Enhancement Project (HEQEP) of the University Grants Commission (UGC). Detection of cancer biomarkers using nonlinear optics was done through the application of LASER beam to the serum of cancer patient. Measurement of non-linear indicators started in SUST by developing a non-linear Bio-optics Research Laboratory. Nonlinear properties of any sample of cancer patient will easily be possible to be measured minutely by this procedure. The patent process of this early cancer screening procedure is also ongoing in US and Bangladesh.

Bangladesh is going forward, this research is one of its proof. This research has become successful due to the extensive support of the government towards the higher research works. University Grants Commission (UGC) sponsored this research project where 25 teachers and students were involved. This innovation is the result of laborious and talented trail of them for which total nation feels proud. This flow of research should be continued. Thanks to all of the members of this research team.

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