EDITORIAL

NON COMMUNICABLE DISEASES

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Non Communicable Diseases (NCD's), the emerging of major cause of morbidity and mortality worldwide including developing countries, are estimated to accounts for 50% of total deaths in Pakistan according to WHO country profile of 2014. Hypertension was recognized but considered as essential response to aging and not a treatable condition. American president Franklin D. Roosevelt had a blood pressure of 200/120 but his physician gave him a clean bill of health. He subsequently had a fatal hemorrhage. Hypertension was not given the name but was recognized as hard pulse since ancient times. The debate continued even in 1960s to treat and not treat hypertension. It was labeled as essential hypertension as a part of aging process and not considered a disease. The Medical research council in UK conducted first Randomized Controlled Trial (RTC) in 1948; thus leading a way to develop further studies in treatment of diseases. The first such a trial was conducted for thiazides and thiazides like compounds for treatment of blood pressure. Since then there has been a number of trials beginning with (VA1-2 VA cooperative study 1967 and 1970) trial in 1967 to SPRINT (Systolic Hypertension intervention trial) in 2015[1,4].

Joint National Committee (JNC) in USA was first established in 1976 to provide recommendation for management of hypertension. JNC was established by The National Heart, Lung and Blood Institute (NHLBI) to promote prevention, detection of blood pressure and treatment[2].

These guidelines were published every 4-6 years until year 2007. JNC8 was delayed for many years and was published as an expert report but labelled as JNC8 which provided controversy by raising the bar for age 60 and above to less than 150/90 mm Hg, while for age 30 to 59 it remained less than 40/90 mm Hg[3]. Initially diastolic blood pressure was main target of pharmacological treatment subsequently target was defined for both systolic and diastolic blood pressure. Many other guidelines including WHO/ISH and national guidelines from various countries were published but JNC guidelines provided global leadership.

SPRINT trial in 2015 was a spanner which showed that the lowering blood pressure less than 120/80 in nondiabetic population showed 25% reduction in mortality and 30% reduction CV events; and the trial was stopped prematurely. Recent guidelines of ACC/AHA have recommended lowering normal blood pressure to less than 120/80 mm Hg, supported by SPRINT trial and 19 other trials and 42 trials demonstrated lower risk of SBP between 120-124 mm Hg.[5] There has been an increase in adults with raised blood pressure 594 million in 1975 to 1.3 billion in 2015 based on previous definition of normal BP of less than 140/90. The new definition has resulted in increase in hypertensive adult population. From 31.9% from JNC7 figures to 45.6% in USA and 36.2% who required treatment will now increase to 53.4%. The figures for above treatment goal will increase from 9.6 to 39% and above. The scenario in Pakistan according to national health survey of 1994 18% of adults suffer from high blood pressure; 21.5% in urban areas and 16.2 in rural areas. (<3%) have their BP controlled. According to WHO country profile for Pakistan estimated 50% of total death due to no communicable disease (NCDs. According to WHO statistical profile of Pakistan 28.6% of the males age 25 and above and 28% females population had raised blood pressure. New guidelines will increase the number of adult hypertensive to 30% of adult population (adult population 68.68 million Pakistan 2017 census).

Presently the rest of the world is maintaining BP to less than 130/80 mm Hg as pre hypertensive and 140/90 ≥ as abnormal BP. The recent guidelines emphasize accurate measurement of blood pressure preferably out of office or ambulatory BP measurement. The NICE guidelines in 2011 recommended ambulatory BP measurements as guideline for treatment. The recent guidelines have also excluded beta blockers as initial treatment choice and many other guidelines also share this point of view. The revised Pakistan hypertension league guidelines maintain a normal BP as less than 120/80. Though this low level is logical because atherosclerosis starts when BP level of systolic is 115 mm Hg; the ACC/AHA guidelines do not take into account of real world conditions where BP measurement is done is less than optimal condition. Many other organizations have still maintained ≥ 140/90 mm Hg as treatable hypertension.

Hypertension is a major contributor to morbidity and mortality in myocardial infarction, stroke, heart failure, atrial fibrillation and renal failure and peripheral artery disease. The level of blood pressure is still controversial. The diet control of systolic BP in patient with coronary artery disease does not improve outcomes in patient with coronary artery disease and diabetes. A small number of high risk hypertensives can benefit from inten-

sive lowering of BP to less than 130/80 or 120/80 mm Hg.

As Lancet editorial in 2007 stated "physicians need to convey the message that hypertension is first and easily measurable, irreversible sign that many organs in the body are under attack."

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