

Hypertension In Children An Ignored Aspect Of Paediatric Health Care

IDREES H, SALEEMI MA, SAGHIR A, NAEEM S

ABSTRACT

Objective: To estimate the presence of hypertension in children.

Design: Descriptive study.

Place & Duration of Study: The study was conducted at YWCA School at Queen's Road Lahore from 1st of May 2010 to 31st of May 2010.

Patients & Methods: All the children from class 1 to 10 underwent general physical examination including the blood pressure measurement. Hypertension was labeled when readings were greater than 95th centile of diastolic blood pressure.

Results: There were 100 males and 62 females. Age range was 4-17 years. There were 12 (7%) children with hypertension, 9 (75%) males and 3 (25%) females respectively, out of which 3 males and 2 females were obese also.

Conclusion: Hypertension is a health problem also in children.

Key words: Hypertension Obesity.

INTRODUCTION

Measurement of blood pressure should be a part of a routine annual clinical examination of children especially 3 years old and above. In younger children systemic hypertension is usually due to some secondary cause, and the prevalence is <1%. However as the children approach adolescence and beyond, the incidence of essential hypertension increases, with increasing probability that adolescents becoming adult hypertensives. Children with blood pressure > 90th percentile have almost 2.5 times risk of retaining hypertension in adulthood¹. Measures like palpation of all peripheral pulses particularly of femoral pulse in a newborn or older children cannot be underestimated which gives quite a fair idea of coarctation of aorta.

Essential hypertension is a hypertension without an underlying clinical cause, and that is a type of hypertension which makes a very large portion of paediatric hypertensive patients². Although family history is important, but with increasing sedentary life style, changing diet habits and increasing tendency toward being obese are contributing factors for the increasing prevalence of hypertension in children. With immense knowledge; of contribution of hypertension in causing ischemic heart disease and atherosclerotic changes, it is prudent to diagnose hypertension as early in age as possible, so that remedial

measures can be taken, such as diet control, salt restriction and routine exercise.

PATIENTS & METHODS

All the students of the school were checked for blood pressure with mercury sphygmomanometer having appropriate size cuffs and bladder (i.e. cuff covering the upper 2/3rd of the Right arm and bladder encircling 80% of the arm itself). Hypertension was diagnosed when diastolic blood pressure was > 95th percentile taking into consideration the sex and height percentile of the child³. The blood pressures were rechecked twice, week apart, of the hypertensive children to exclude white coat hypertension before labeling them hypertensive.

RESULTS

Only 4 children out of 162 had their blood pressure previously checked. 6 (67%) males and 2 (67%) females also had systolic blood pressures > 95th centile, none of these children had blood pressures previously measured. All hypertensive children were overtly healthy and had no symptoms of any illness or signs of any disease. No hypertensive child with or without obesity was short statured, none of them had noticed any symptoms of increased blood pressure or had family history of early death in the family.

DISCUSSION

The selected school was managed by a charity with nominal fee charged from the pupils. Almost all students hailing from low and poor families of nearby areas. We accept that our sample might not represent the Pakistani children, but 12 hypertensive children among 162 is a significant number because these children are potential adult hypertensives. With a huge population under 15 these numbers if extrapolated would give us a very horrifying picture⁴. The potential of being obese in our children particularly of posh areas and well to do families is quite obvious now a days. If similar studies be carried out in rich people schools we might not be wrong if we expect greater number of children with hypertension. The magnitude of hypertension related diseases is a common known fact; particularly heart and renal diseases. The economic burden bear by the society and health services in looking after the illnesses like ischemic heart disease and end stage renal failure which

are generally due to hypertension drains a large portion of resources allocated to health sector.

CONCLUSION

Hypertension is a health problem also in children. Blood pressure should be measured in children at least annually to pick the hyper tension early in life so that remedial measures be taken timely. Unfortunately it's an ignored aspect of child health care.

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