THE NEGLECTED ASSOCIATION OF LUNGS AND GLYCEMIC CONTROL.

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Introduction

The awareness of diabetes and its increasing complications remain hidden and often diagnosed stage at a later stage in India, especially among the rural population. Diabetes is known to affect multiple organs in the body but lung as a target organ has not been highlighted enough. Pulmonary Function Test is an important tool in the early diagnosis of lung involvement in diabetes, however its availability and utility among the mass population in India is not abundant. Recent surveys show that diabetes at present involves a thundering 10-16% of urban community and (5-8%) of rural community in India.¹²

Deepa Mohan et al, a study done in Chennai showed that even the diabetic patients who were aware of their disease, the knowledge and awareness about the complications of diabetes was poor.³

Study conducted by David. A Kaminsky in 2004 shows that a restrictive pattern of lung disease as a complication can occur before the diagnosis of diabetes is made, thus indicating that the pathogenesis of diabetes significantly affects the lung parenchyma.⁴

Many cross sectional studies have shown that many diabetic patients upon investigation have shown decreased lung volumes upto 10%, and this was in comparison to healthy individuals.

Subsequent studies have shown increasing evidence of micro angiopathy due to thickening in alveolar capillary and pulmonary arteriolar walls⁵.

The complications of diabetes have been largely studied under neuropathy, nephropathy and retinopathy, where as strict glycemic control to cease pulmonary complications have been under studied. Spirometry and Pulmonary Function Test being an important tool in the diagnosis of pulmonary complications isn’t readily available to all the patients who visit the outpatient department. The mechanism by which diabetes affects lung function has been shown by various mechanisms as shown by previous studies ranging from glycosylation of lung parenchyma, loss of collagen and elastin among others. An investigation and survey was done to point out the limited use of spirometry in India, the high cost of the procedure (54%) being the prime reason. Thus education of the mass population about the disease and its complications are an urgent need for the country, because though some are aware of the disease, but they are negligent towards the investigations and treatment of the same, largely due to the high cost. The prevalence of diabetes is largely seen in the geriatric age group in India because the knowledge of life style modification is scarce.

The primary medical personnels in contact with diabetic patients should be educated and given access to the use
of spirometry to afford an early diagnosis of lung involvement in diabetes. It is of utmost importance that the World Health Organization extends a genuine help towards effective communication, adequate technical knowhow more so in the rural parts of India, easy accessibility and affordability of diagnostic tools like spirometry at the rural health care centre levels.

REFERENCES


