Incidence of stroke among diabetic nephropathypatients: A meta-analysis

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Background and Objectives: The association of micro vascular complications (diabetic nephropathy) with the stroke is limited because it will require huge sample size of diabetic population with nephropathy and long follow-up period to see the association or development incidence of stroke among these patients. So, we conducted out this meta-analysis of the existing studies to find out the incidence/ risk of stroke among diabetic nephropathy patients and, explore the association between stroke and proteinuria in a diabetic nephropathy population and to describe Does Degree of Proteinuria a Clinical Matter!! ?

Methods & Materials: We searched the existing databases from the year 1995 to August2018 by using the MeSH terms. All cohorts, cross sectional studies were searched for, fulfilling the inclusion criteria and as per operational definitions.

Study Result: Seven studies were found to be eligible for inclusion in the meta- analysis. The hazards or risk of stroke development among diabetic patients was 3.25 times higher in patients with nephropathy as compared to patients without nephropathy.

The pooled hazards ratio of 1.46 (95% CI=0.81-2.60) and of 1.65 (95% CI=0.53-5.11) among diabetic patients with micro albuminuria and macro albuminuria respectively.

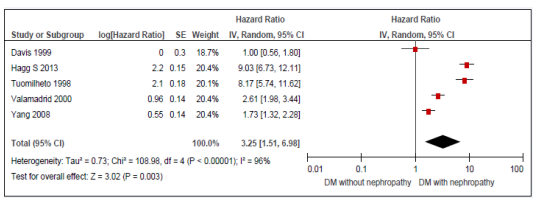

Figure1: Forest plot- Hazard ratio of stroke among diabetic patients with and without nephropathy

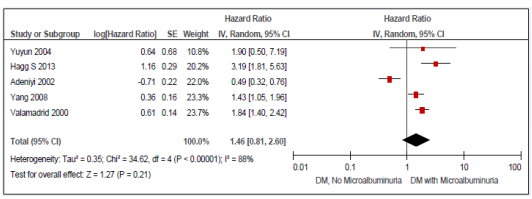

Figure2: Hazard ratio of stroke among diabetic patients with and without Micro albuminuria

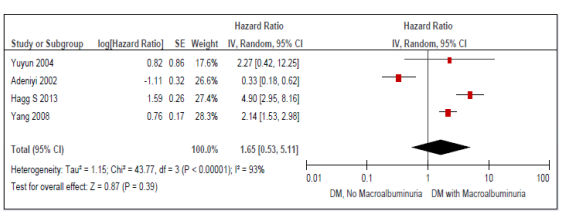

Figure3: Hazard ratio of stroke among diabetic patients with and without Macro albuminuria

Conclusion: This is the first meta-analysis which has included studies from January 1995 to August 2018 to the best of our knowledge which has tried to compare the risk/ hazard of stroke among diabetic patients with and without nephropathy and sub- group analysis for micro- and macro albuminuria.

Diabetic nephropathy patients have a higher incidence and risk of stroke compared to diabetic patients without nephropathy.

Biography

Abdulrahman Alharbi is currently working as an Assistant Professor of Neurology & Consultant Stroke Neurologist in the College of Medicine at Majmaah University.

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