

Submission No.: NBR2-9094

Session Title: Nephrology Board Review Course 2

Date & Time, Place: April 30 (Sun), 10:40 - 12:40, Room 4

Management of Diabetic Kidney Disease: Current Best Practice

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Diabetic kidney disease (DKD) is a common complication of diabetes mellitus and is a leading cause of end-stage kidney disease (ESKD). Management of DKD includes a multifaceted approach that aims to slow the progression of the disease, manage complications, and reduce the risk of cardiovascular disease.

Lifestyle modifications such as smoking cessation, regular exercise, and a healthy diet can improve overall health and reduce the risk of cardiovascular disease. Maintaining good glycemic control is the cornerstone of managing DKD. An individualized HbA1c target ranging from <6.5% to <8.0%. This can be achieved through lifestyle changes, such as exercise and a healthy diet, and medication such as insulin or oral hypoglycemic agents. First-line treatment with metformin and a sodium-glucose cotransporter-2 inhibitor (SGLT2i) is recommended if eGFR is above 30 mL/min/1.73m². SGLT2i and the glucagon-like peptide-1 receptor agonists (GLP-1 RA) showed cardiovascular and kidney protective effects, independent of the glucose-lowering effect.

High blood pressure is a major risk factor for DKD progression. An angiotensin-converting enzyme inhibitor (ACEi) or an angiotensin II receptor blocker (ARB) is recommended to be titrated to the highest approved dose that is tolerated. Also, ACEi and ARBs are effective in reducing proteinuria and slowing DKD progression.

Dyslipidemia is believed to contribute to the development of albuminuria and the progression of DKD. Administration of lipid-lowering drugs for the primary and secondary prevention of CVD is an important element of DKD management. Statin therapy is generally considered the first choice of hypolipidemic agent.

In summary, the management of DKD involves a comprehensive approach that addresses glycemic control, blood pressure control, lipid management, proteinuria management, lifestyle modification, and management of complications. This approach can slow DKD progression, and improve overall health outcomes.