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The dire need for improved management of chronic kidney disease – associated hypertension in Pakistan

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Chronic Kidney Disease (CKD) refers to various kidney disorders ranging from mild to severe chronic kidney failure. Because of its escalating incidence and mortality rates, CKD is a serious public health concern in Pakistan. According to a study published in 2018, the overall prevalence of CKD among Pakistani adults was 21.2%, the highest in South Asia. (1) Although there are numerous risk factors for CKD, such as diabetes, cardiovascular disease, smoking, obesity, and genetics, hypertension poses the most serious threat, as the global prevalence of CKD-associated hypertension is between 60 – 90%. (2) In most people with CKD, proteinuria is observed in conjunction with hypertension. (3) As per the Kidney Disease Outcomes Quality Initiative (KDOQI) recommendations, ACE inhibitors and Angiotensin II Receptor Blockers (ARBs) are the preferred treatment choices for diabetic kidney disease and non-diabetic kidney disease patients with proteinuria. In 2013, a cross-sectional study conducted in Karachi, Pakistan, revealed that only 46.1% of General Practitioners opted for ACE inhibitors and ARBs as primary treatment for hypertension and proteinuria associated with CKD. (4) A randomized crossover trial conducted in March 2021 compared candesartan's antihypertensive and antiproteinuric effects and the newest ARB, azilsartan medoxomil. The study results revealed that azilsartan (20 mg daily) treatment significantly decreased proteinuria and blood pressure without a noticeable increase in side effects than

candesartan (8 mg daily) in patients with CKD who required antihypertensive drugs. (5) Considering the high prevalence of CKD in Pakistan, doctors must follow KDOQI guidelines and prescribe ARBs as the primary therapeutic agents for hypertensive patients with CKD. Azilsartan, the most recent ARB, has been proven to have the most potent antihypertensive and antiproteinuric benefits with the fewest side effects. (5) Therefore, physicians should encourage CKD patients to use azilsartan instead of candesartan and other classes of ARBs. Furthermore, improved screening techniques for CKD must be introduced and implemented so that doctors can manage the disease more effectively before it progresses into its final stages. Such screening tests would also help to improve blood pressure control among patients recognized to have CKD. Therefore, Pakistan's public health sector should ensure the implementation of Kidney Disease Improving Global Outcomes (KDIGO) criteria to screen and manage CKD and CKD-associated hypertension and diabetes. Lastly, there is a dire need for awareness programs to educate general health practitioners regarding CKD management and the benefits of timely referral to a nephrologist.

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