DOI: https://doi.org/10.54393/pjhs.v6i1.2835

PAKISTAN JOURNAL OF HEALTH SCIENCES
(LAHORE)
https://thejas.com.pk/index.php/pjhs
ISSN (E): 2790-9352, (P): 2790-9344
Volume 6, Issue 01 (January 2025)

The Rise of Polycystic Kidney Disease (PKD): Early Detection and New Treatment Options

OPEN ACCESS

Sami Ullah Mumtaz[1]

[1]Department of Medicine, Narowal Medical College, Lahore, Pakistan
drsumumtaz@gmail.com

ARTICLE INFO

How to Cite:

Mumtaz, S. U. (2025). The Rise of Polycystic Kidney Disease (PKD): Early Detection and New Treatment Options. Pakistan Journal of Health Sciences, 6(1), 01. https://doi.org/10.54393/pjhs.v6i1.2835

Polycystic Kidney Disease (PKD) is a hereditary disorder that results in the formation of fluid-filled cysts in the kidneys. Cysts can cause damage or worse renal failure over time. Although PKD has no cure, recent developments have helped in early detection and provided additional therapies that can control the condition and improve the quality of life of the affected. Early detection is essential to slow its progression and maintain renal function. It is inherited in an autosomal dominant pattern so the children of the afflicted parents have a 50% chance of developing this condition. The symptoms include kidney infections, flank pain, high blood pressure, and frequent urination, they don't show up until later in life. Cyst formation may start sooner in childhood, and the condition may advance more quickly in certain instances. PKD can be confirmed by performing genetic testing in families with a history of the condition. Imaging methods such as MRI and ultrasound are essential in early diagnosis. Ultrasonography can be used to visualize the cyst. If this condition is diagnosed early medical professionals can treat the patient and control the symptoms while delaying kidney impairment. Some medications can delay its progression, but currently, no cure is there. There is a drug called Tolvaptan which inhibits the growth of kidney cysts and aids in maintaining renal function, is considered one of the noteworthy achievements. It has shown promising results in delaying the need for dialysis or kidney transplants by inhibiting the hormone vasopressin, a hormone responsible for the formation of cysts. Hypertension can worsen renal damage so drugs such as ACE inhibitors and angiotensin receptor blockers (ARBs) are prescribed to maintain blood pressure levels.

Stem cell researchers are working on the repairing and renewal of damaged kidney tissue. Research on this subject has just started but the potential of this research can be foreseen in producing novel medicines that could revolutionize PKD care shortly. Life style plays an important role in controlling PKD, kidney strain can be reduced by maintaining a healthy life style, eating a diet that is low in proteins, and avoiding smoking.

Frequent exercise can improve health and blood pressure. PKD is a health concern that affects people significantly but early detection and new treatments like tolyaptan and ongoing research are the hope for patients.

Although no cure is available advancements in managing the disease can improve the quality of life and delay renal failure. With early intervention and the right treatment approach, PKD patients can lead healthier and more fulfilling lives.