

IMPULOG

Alpha Ketoanalogue Tablets

The
~~Reactive~~
Proactive
Approach



IMPULOG

Alpha Ketoanalogue Tablets

CLINICAL EVIDENCE

Treatment of chronic kidney disease patients with Keto analogue supplemented low protein diet and Keto analogue supplemented very-low-protein diet

The comprehensive clinical study on 178 adult patients with CKD Stages 3-5 (predialysis).

DURATION: 1 year

TWO GROUPS:

Group-A (sLPD Group): 122 Patients (sLPD - supplemented with Low protein diet)

Dosage: One Keto analogue Tablet/10 Kg body weight + Low protein diet (0.6 g/kg body weight)

Group-B (sVLPD Group): 56 patients (sVLPD - supplemented with very Low protein diet)

Dosage: One Keto analogue Tablet/5 Kg body weight + Very low protein diet (0.3 g/kg body weight)

ENDPOINTS: Blood urea, Serum creatinine, eGFR, Creatinine Clearance (CrCl), Urinary Nitrogen Appearance (UNA) and nutritional parameters, and anthropometric assessments were performed for all patients.

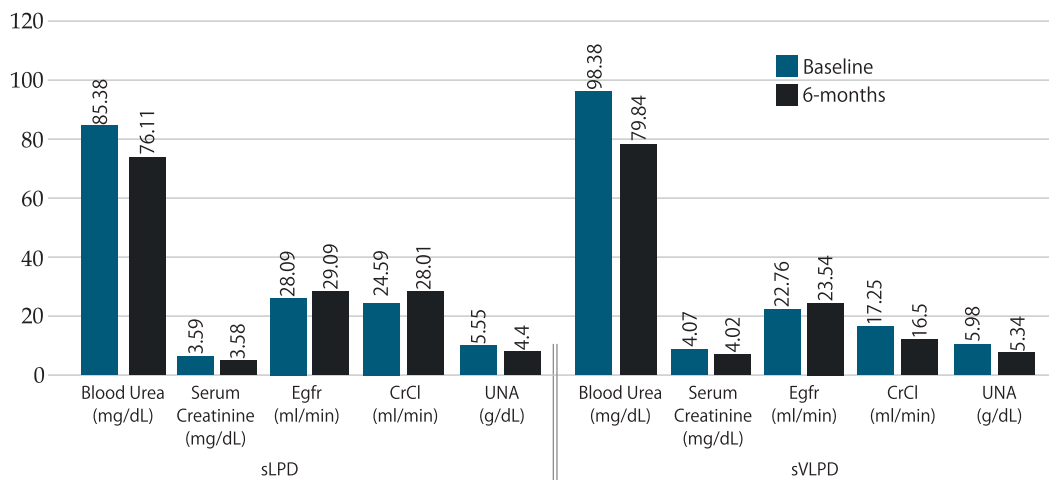
RESULTS:

	Parameter	Baseline	6 months	1 st P	12 months	2 nd P
sLPD n=122	Blood Urea (mg/dL)	85.38 ± 40.08	76.11 ± 37.55	<0.01	76.90 ± 42.90	>0.05
	Serum Creatinine (mg/dL)	3.59 ± 1.83	3.58 ± 1.87	>0.05	3.63 ± 2.07	>0.05
	eGFR (ml/min)	28.09 ± 15.09	29.09 ± 17.76	>0.05	30.97 ± 21.30	>0.05
	CrCl ((ml/min)	24.59 ± 16.13	28.01 ± 20.16	>0.05	29.45 ± 28.16	>0.05
	UNA (g/dL)	5.55 ± 2.14	4.40 ± 1.54	<0.05	4.85 ± 1.99	<0.05
sVLPD n=56	Blood Urea (mg/dL)	98.38 ± 42.90	79.84 ± 34.15	<0.05	102.74 ± 45.00	>0.05
	Serum Creatinine (mg/dL)	4.07 ± 1.00	4.02 ± 1.71	>0.05	4.89 ± 2.50	<0.05
	eGFR (ml/min)	22.76 ± 8.97	23.54 ± 10.61	>0.05	20.88 ± 12.62	>0.05
	CrCl ((ml/min)	17.25 ± 9.25	16.50 ± 8.64	>0.05	18.24 ± 12.12	>0.05
	UNA (g/dL)	5.98 ± 2.87	5.34 ± 2.98	<0.05	4.19 ± 1.25	<0.05

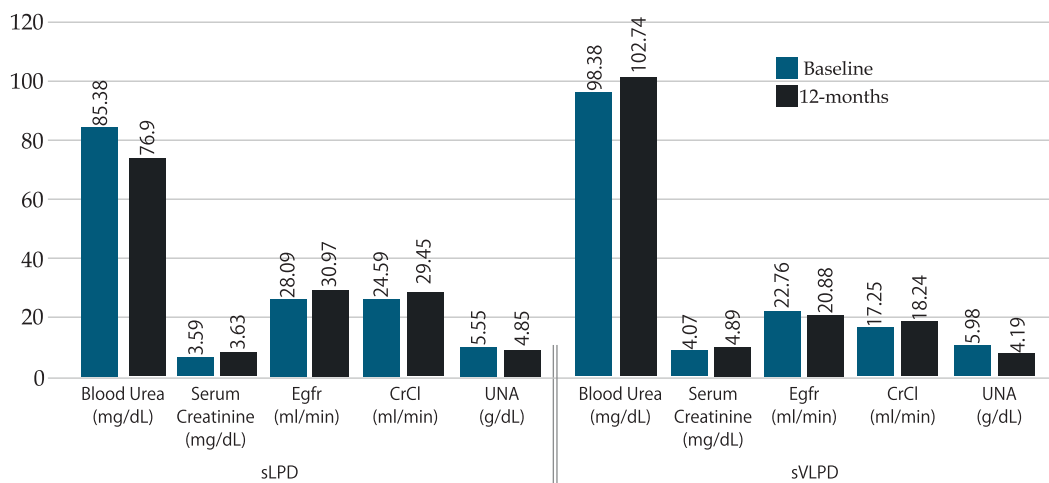
- In the sLPD group, the blood urea level decreased from 85.38 ± 40.08 to 76.90 ± 42.90 mg/dL (p <0.05) after 12 months.
- CKD stage wise assessment of the 24-hour urinary creatinine clearance (CrCl) showed an improving trend of renal function. In the sVLPD group, the blood urea level after 6 months decreased from 98.38 ± 42.90 to 79.84 ± 34.15 mg/dL (p <0.05).

- The CrCl showed a marginal increase at the end of 1 year, but this increase was not statistically significant. There was a decrease in urinary protein excretion in both groups. Anthropometric measurement, including Subjective Global Assessment, showed nutritional improvement in both groups.

Change in renal function and UNA in the sLPD and sVLPD groups during the 6 months study period



Change in renal function and UNA in the sLPD and sVLPD groups during the 1-year study period



CONCLUSION:

- The protein-restricted ketoanalogue treated patients in this large series showed no statistically significant change during the 1-year study period, **indicating slowing down of progression of CKD**.
- In addition, there was an **improvement in metabolic and nutritional status**, although the protein restricted diet in normal circumstances is likely to cause malnutrition.
- The key is to use the right dosage of Ketoanalogue supplements in addition to ensuring strict compliance of dietary restrictions.

In CKD Patients, Ketoanalogue delays the disease progression and improves the nutritional status.

“ ”

IMPULOG

Alpha Ketoanalogue Tablets

BACKGROUND:

Diabetic nephropathy is the leading cause of progressive kidney disease, leading to end-stage renal disease and renal replacement therapy. High protein intake is considered as risk factor for kidney disease. A low-protein diet (LPD) is believed to be a nutritional intervention that may slow kidney disease progression. But Low protein diet also leads to protein energy wasting, nutrition deficiency, decrease muscle mass. Therefore, management of patients with chronic kidney disease (CKD) requires attention to their altered metabolism and nutritional status, as well as their nutritional needs.

DESCRIPTION:

IMPULOG is a combination of 5 alpha keto amino acids and 5 essential amino acids. The alpha keto amino acids are in the form of calcium salts. Therefore allowing reduction in the nitrogen supply and also provides calcium.

The use of **IMPULOG** in association with a very low protein diet allows a reduced intake of nitrogen while avoiding the deleterious consequences of inadequate dietary protein intake and malnourishment.

MECHANISM OF ACTION:

IMPULOG allows the intake of essential amino acids while minimizing the amino-nitrogen intake. Following ingestion, the ketoanalogues are transaminated by taking nitrogen from non-essential amino acids, thereby decreasing the formation of urea by re-using the amino group. The levels of accumulating uremic toxins are decreased. Keto acids do not elicit hyperfiltration of residual nephrons.

INDICATION:

Prevention and treatment of diabetic renal damages.

DOSAGE:

The recommended dose of **IMPULOG** is 1 tablet/5kg body wt. /day. A person weighing 50 kg will require 10 tablets/day.

ADVANTAGES OF IMPULOG:

- Decreases uremic toxins
- Prevents protein-energy wasting
- Slows rate of GFR loss
- Delays the need for RRT
- Reduces proteinuria
- Improves altered mineral metabolism
- Prevents or decreases metabolic acidemia
- Improves quality of life
- Has a potential economic benefit

La Renon Healthcare Pvt. Ltd.

207-208 Iscon Elegance, Circle P, Prahlad Nagar Cross Roads,
S.G. Highway, Ahmedabad-380015, Gujarat, India.
Phone: + 91-79-6616-8998 | Fax: +91-79-6616-8998
E-mail: info@larenon.com | Web: www.larenon.com

I am:	<input type="text"/>
Call me on:	<input type="text"/>
Mail me at:	<input type="text"/>

©2019 All rights reserved, La Renon Healthcare Pvt. Ltd.