Real World Effectiveness of Vildagliptin SR in Indian Young-Onset : Insights from NOVELTY Study

S Patil[1*], R Sahay[2], A Bhansali[3], S Sharma[4], A Sur[5] , A Dengra[6], S Gupta[7], R Iyer[1], A Sugumaran[1], S Mohanasundaram[1]

[1]Medical Affairs, Cipla Ltd., Mumbai, India, [2]Osmania Medical College and Hospital, Hyderabad, India, [3]Gini Health, Chandigarh, India, Chandiga
Galaxy Specialty Cente, Jaipur ,India, [5]Peerless Hospital, Kolkata, India, [6]Mahi Diabetes Centre, Madhya Pradesh, India, [7]Sunil's Diabetes Care and Research Centre, Nagpur, India.

BACKGROUND

- Young-onset type 2 diabetes mellitus (YOD), defined by diagnosis of diabetes before the age of 40 years, presents a unique clinical and metabolic challenge[1]
- Prevalence of YOD has increased from 4.5 to 7.8% over a period of 10 years[2]
- Scarcity of data on the effectiveness of vildagliptin SR in YOD patients.
- The NOVELTY study in Indian patients with Type 2 diabetes mellitus (T2DM), provided an opportunity to evaluate the effect of Vildagliptin SR in YOD patients from India[3]

NOVELTY Study[3]

Objective

To evaluate the effectiveness and safety of vildagliptin SR in T2DM patients over a period of 3 months.

Study Design

- Single-arm, observational, prospective, open-label, multicenter, cohort study in India
- T2DM inadequately controlled on metformin monotherapy received vildagliptin SR once daily for 3 months in addition to current metformin monotherapy

Inclusion Criteria

- Adult T2DM patients (aged 18 years and above)
- Receiving metformin XR monotherapy at a total daily dose of at least 1000 mg

Exclusion Criteria

- History of hypersensitivity reactions to vildagliptin
- Pregnant/lactating women, and those with a history of hepatic disorders/renal impairment/or any other contraindication for the use of vildagliptin
- Additionally, patients with a history of acute metabolic diabetes complications in the 6 months preceding the study
- Patients with congestive heart failure, unstable angina, or myocardial infarction, or a history of coronary artery bypass surgery within the last 6 months.

OBJECTIVE

To assess the clinical outcomes following 3 months of vildagliptin SR therapy in nts.

METHODOLOGY

Post-hoc subgroup analysis of NOVELTY Study

Inclusion Criteria

- T2DM patients enrolled in NOVELTY study and with an age <40 years at T2DM diagnosis.

Assessment

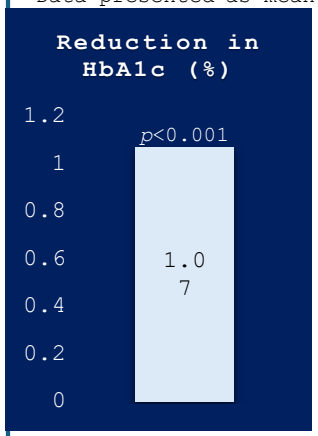
- Change in HbA1c, FPG, PPG,
- % patients achieved HbA1c target (<7%)
- Changes in cardiometabolic parameters
- Physicians' and Patients' assessments on treatment

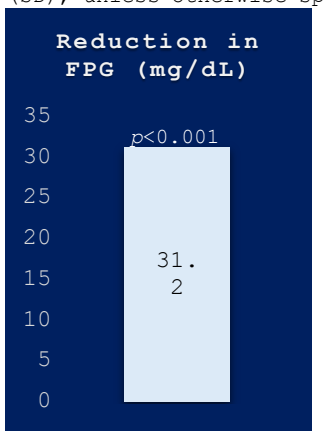
RESULTS

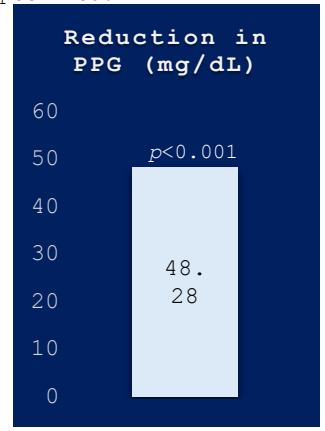
Out of 1691 T2DM patients from NOVELTY study, 182(10.8%) were patients

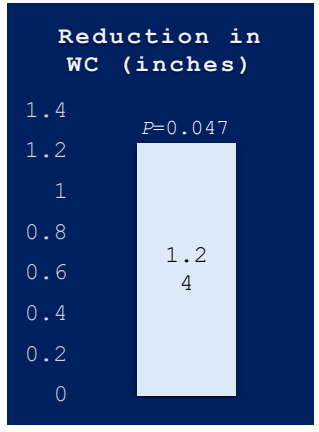
	HbA1c (%)	FPG (mg/dL)	PPG (mg/dL)	SBP (mmHg)	DBP (mmHg)	WC (inches)	BMI (kg/m^2)
Baseline	8.24 (1.32)	156.98 (40.77)	231.85 (57.76)	127.34 (15.89)	81.93 (8.42)	40.17 (16.11)	27.91 (6.60)
After 3 Months	7.17 (0.95)	125.76 (27.47)	183.57 (46.42)	125.31 (14.53)	80.70 (9.22)	38.93 (16.11)	27.50 (4.91)

Data presented as mean (SD), unless otherwise specified.









- % of patients achieved HbA1c <7.0%: 45.6

- Physician assessment of efficacy and tolerability: Positive in ~95%
- Patient satisfaction : Positive experience in ~94%

CONCLUSION

- **Vildagliptin SR** significantly improved glycemic and metabolic outcomes in YOD over 3 months.
- **Results support early, aggressive intervention** in YOD patients with distinct clinical needs.
- **Highlights the value of age-specific analysis** in real-world diabetes management.

DISCLOSURES:
Sushama Patil, Rahul Iyer, Amarnath Sugumaran, Senthilnathan Mohanasundaram are employees of Cipla Limited, India. All other authors have no conflict of interest to declare.

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1. The Lancet Diabetes Endocrinology. 2024;12(7):433. 2. Nanditha A, J Diabetes. 2024;16(7):e13576. 3. Sahay R, Drugs Real World Outcomes. 2025;12(1):83-91.

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