

# Oral Gliclazide (A Sulfonylurea) Monotherapy Is Effective and Safe in the Management of T2DM in Children, a Case Report.

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## Introduction

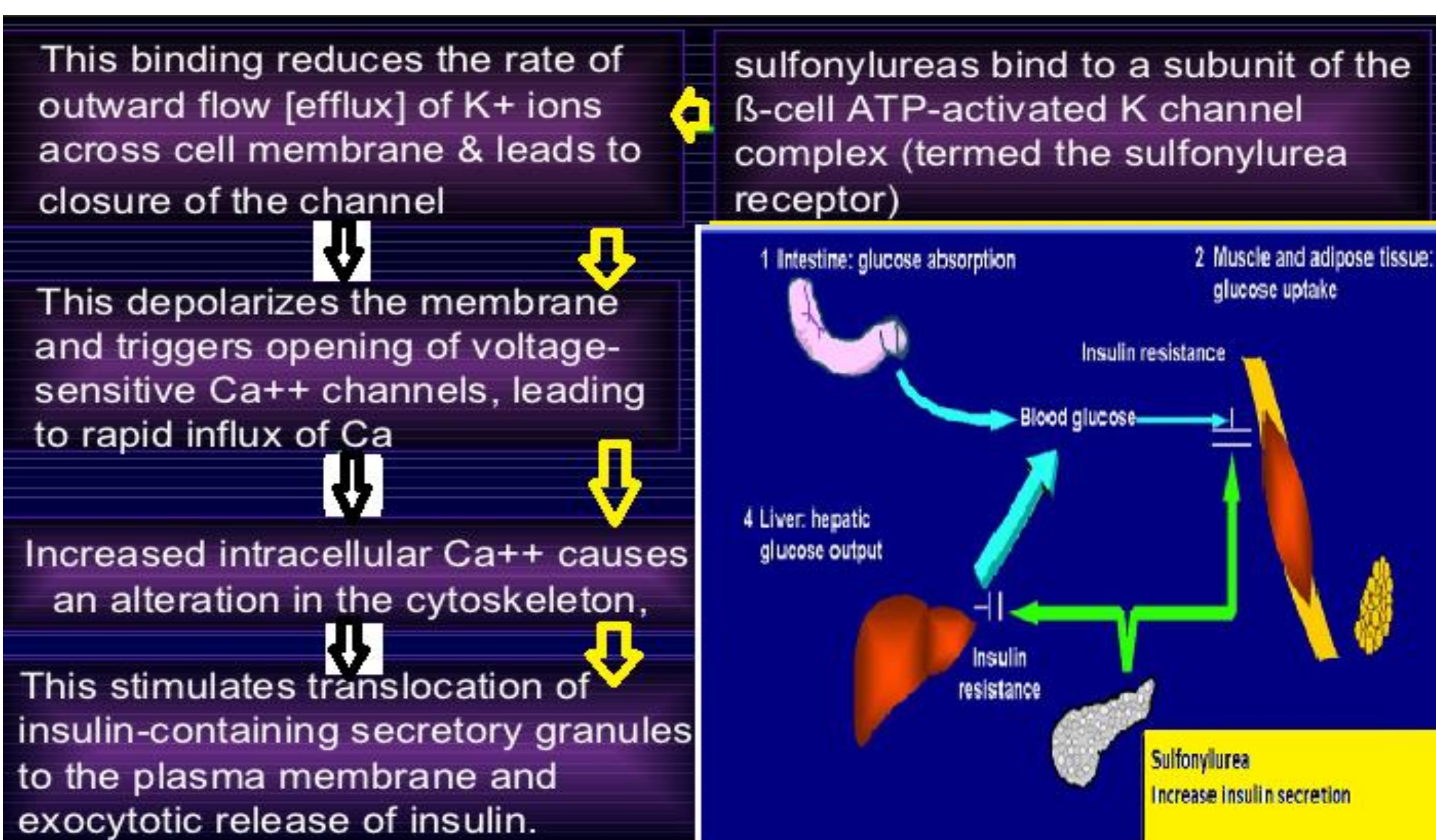
Both insulin resistance and defective insulin secretion exist in children with T2DM.

T2DM in pediatric patients is usually treated with metformin and insulin. The use of other oral antidiabetic drugs

Most of the oral medications available for treating type 2 diabetes (T2DM) have not been studied in children and not clearly delineated in T2DM in children although potentially useful.

Gliclazide is a potent oral hypoglycemic agent that increases insulin secretion.

This case report shows the effect of oral sulfonyl urea in the management of a child with T2DM.



## Case Report

A 13 year- old girl, presented with polyuria, polydipsia and weight loss (5 kg) for 2 weeks before presentation.

Her Weight = 65.7 kg, Height = 152 cm (15th percentile) and BMI = 27 (>97th percentile). She had acanthosis nigricans but no goiter.

Laboratory work up revealed Blood glucose = 27mmol/l, HbA1C = 11.6 %, insulin level 14.4 uU/ml (n= 2.0 - 23.0 uU/ml) and C- peptide= 1.15 ng/ml (n= 0.78- 5.19ng/ml).

## OGTT using 75 g of dextrose showed:

	Glucose (mmol/L)	C peptide (ng/ml)	Glucose On Gliclazide
0- hr	6.3	1.4	6
2-hrs	15.5	7.37	7.8

T2DM) was diagnosed. She was initially started on s.c insulin (basal/bolus regimen) (0.6 units/kg/day). After 6 months her HbA1C dropped to 5.9 %.

Her weight increased to 70 kg. We investigated the effect of oral Gliclazide 60mg once daily. OGTT on Glyclazide showed FBG = 6 mmol/L and 2h = 7.8 mmol/L.

Insulin was stopped and patient started on 60 mg Gliclazide PO daily.

Her BG pre meals as following: before breakfast before lunch (6.3-6.1mmol/L) and before lunch (6: 6.7 mmol/L) and before dinner (6-6.6 mmol/L). Her HbA1c continued to be 5.9: 6.2% in subsequent visits for 1 year.

No hypoglycemia or other side effects was reported during this period. Her weight remained the same during the full year (70 kg).

## Conclusions

Sulphonyl urea (Gliclazide) offers a safe long-term control similar to insulin in our adolescent with type 2DM.

More studies are required to assess the efficacy and safety of its use in large cohort of children with type 2 DM.

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