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**THE ASSOCIATION OF RISK FACTOR PREVELANCE IN THE PATIENTS OF TYPE 2  
DIABETES WITH THE ORAL DRUGS AND THE INSULIN THERAPY**

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**Relevance.** Type 2 diabetes (T2D) is a critical global health crisis and ranking as a leading cause of mortality and disability. Chronic hyperglycaemia causes adverse effects such as macrovascular and microvascular complications while simultaneously increasing infection risk.

**Aim:** to assess evaluate and compare the treatment results in T2D patients, specifically looking at the differences between those managed with oral hypoglycemic drugs and those requiring insulin therapy with further estimation of prevalence of leading comorbidities and complications. Furthermore, the research investigates how factors like smoking status, frequency of hospital admissions, and the presence of dominant infections differ between these treatment pathways.

**Materials and methods.** The research was carried out at the medical clinics of Vavuniya District Hospital and the endocrinology clinic at the District General Hospital. Permission was obtained from the respective consultants after the research proposal received approval from the Ethics Review Committee at the District General Hospital. The period was from September 2024 to October 2025. The number of patients were about 412 individuals; the remaining were excluded as type 1 were very minimal. The main drugs that were most used among the study was metformin, gliclazide, sitagliptin and insulin.

**Results and their discussion.** Our study included 412 participants where 68.1% were female and 31.8% male. Among males, 54.5% used oral hypoglycemic drugs (OHD) compared to 45.5% on insulin. Among females, 51.5% used OHD and 48.5% used insulin. Overall, 52.5% of patients relied on OHDs like metformin or gliclazide, while 47.5% had used insulin for at least one year. The 60–70 age group showed the highest use of combined OHD and insulin therapy (57.1%), while the 30–40 age group had the lowest (3.9%). Hypertension was the most common comorbidity (68.6%) across both groups. Peripheral neuropathy was the most prevalent complication (56.55%) overall and remarkably less in patients using OHD – 50.9% vs 61.9% – insulin therapy ( $\chi^2=5.1$ ,  $p<0.05$ ). Same scenario with retinopathy with OHD – 39.9% and 51.3% – insulin therapy ( $\chi^2=5.4$ ,  $p<0.05$ ). Notably, 83.9% of all patients had no hospital admissions. Infections on the dermis and the soft tissues were slightly more frequent in the insulin group – 31.0% vs. the OHD group – 22.9% ( $\chi^2=5.2$ ,  $p<0.05$ ). While 11.2% of insulin users reported local injection site symptoms, 88.8% experienced none. Respiratory infections had higher relapse rate, with 27.9% of patients having two episodes and 23.8% having three or more within a year. However, recurrence rates for UTI, RTI, and SSTI did not differ significantly between the OHD and insulin groups.

**Conclusions.** Our study found that chronic complications like peripheral neuropathy and retinopathy in T2D patients on insulin therapy were more prevalent than in patients using OHD. Interestingly, when it came to overall comorbidities and the frequency of infections, there was no significant difference between the two groups, both appeared to be affected similarly ( $X^2=0.328$ ,  $p>0.05$ ). The higher prevalence of infections as well as the complications in both groups suggests that treatment not only of chronic hyperglycemia is required but also timely intervention to reduce complications and infections in T2D patients.