



HOW SIGNIFICANT ARE WRONG INJECTION TECHNIQUES IN A REAL WORLD DIABETES CARE SETTING?



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BACKGROUND

With worsening glycemia and increasing lifespan, more and more patients will require one or more insulin shots daily to sustain lives. Though injections are prescribed, taught and trained, it is quite common for patients to commit errors at one step or the other. Errors in injection technique (IT) could be one reason for sub optimal control of glycemia in the vast majority of patients. Patients enrolled at our diabetes centre and initiated on injections are educated on various aspects of injection technique by certified diabetes educators during a 15 mins session. During their subsequent visits, nurse educator examines injection site to verify proper rotation of site and for presence of lipohypertrophy (LH). Many a time, it is observed that despite the training sessions, patients followed improper IT.

AIM

This study is to assess the significance of wrong insulin injection techniques on poor glycemic control in type 2 diabetes in a real world diabetes care setting.

METHOD

We conducted a cross sectional cohort study in the past 2 years among T2D patients enrolled with us, who exhibited improper IT despite attending a 15 min training session. They were again made to attend the session irrespective of frequency of shots and followed up for next 6 months where sessions were continued twice monthly via telephone. During next physical visit, a 10 item questionnaire was administered and injection site examination was carried out. Patient demographics, HbA1c, FBS, years on insulin injections and TDD were obtained at baseline and 6 months from electronic medical records.

DISCUSSION

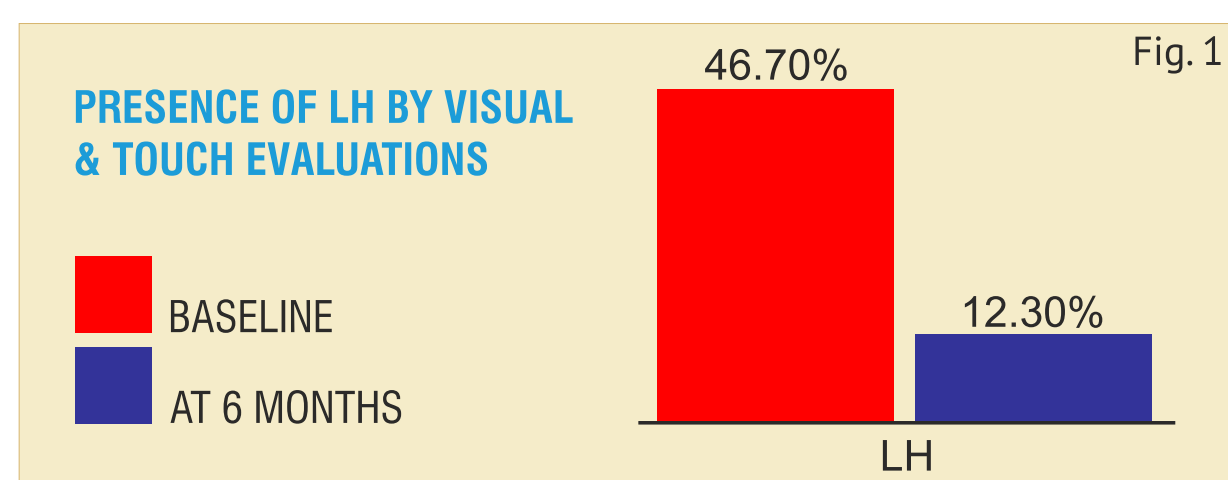
Even patients on injections for several decades, commit errors related to needle change, site rotation etc. Considering the escalating cost of treating diabetes complications, insulin injection techniques need to be scrutinized periodically to ensure patients practice recommended IT which could considerably improve the glycemic burden.

REFERENCE

Tandon N, Kalra S, Balhara YP, Baruah MP, Chadha M, Chandalia HB, Chowdhury S, Jothydev K et al. Forum for Injection Technique (FIT), India: The Indian recommendations 2.0, for best practice in Insulin Injection Technique, 2015. Indian J Endocrinol Metab. 2015 May-Jun;19(3):317-31.

RESULTS

1468 patients were included in the study. Mean age 59.3(14.1), 59.7% male, T2D duration 16.4(3.3), TDD 51.3IU (20.5), years on insulin injections 11.42(7.3), mean HbA1c 8.67(3.12), mean FBS 217(152.7). At 6 months, presence of LH by visual and touch evaluations were 12.3% vs. 46.7% at baseline (Fig. 1). There was a mean reduction in A1c of 0.61%, FBS of 23 mg/dl and TDD of 12 IU. Positive correlation between diabetes duration, age and outdated and improper IT were noted which calls for repeated training sessions in elderly and in those with long standing diabetes. Periodic and customized IT training sessions were found to significantly improve IT and glycemic control.



Conflict of Interest Disclosure:
This poster *does not* contain any trade names.
This poster *does not* cover any unapproved uses of specific drugs, other products or devices.

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