

Insulin Absorption from Lipodystrophic Areas: A (Neglected) Source of Trouble for Insulin Therapy?

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Abstract

The experienced clinical diabetologist first checks the skin at the area where the patient usually injects his insulin when he sees widely fluctuating blood glucose levels in the diary of the patient. He knows that insulin absorption from skin with lipodystrophic changes is irregular. However, our scientific knowledge about why this is the case is very limited. Most probably, the number of blood vessels near the insulin depot in the subcutaneous tissue varies depending on the nature of the lipodystrophic changes, or the structural changes in this tissue hamper the diffusion of insulin. Not only is our knowledge about the number of patients who exhibit such changes very limited, but also our understanding why such changes show up in certain patients and not in others is minimal. More practically important, we also have few quantitative studies investigating the impact of this diabetes-related complication on insulin absorption/insulin action; however, it is not difficult to run such studies in practice. Nevertheless, it is impressive to see how often metabolic control improves considerably once the patients apply the insulin into other skin areas.

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Abbreviations: (CSII) continuous subcutaneous insulin infusion, (SC) subcutaneous

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