

A fairy tale of modern insulin therapy in type 1 diabetes

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A FAIRY TALE

Once upon a time, there was a little girl called Glucose. She was very sociable and liked to visit various people and places. Being pleasant and graceful, she became very popular and everybody would rejoice seeing her. Glucose's best friend since her first year of life was a girl called Insulin. Insulin was a charming girl as well. She was very talented in convincing everybody to let Glucose and herself enter anywhere, even the wildest parties and the most crowded of places. Glucose was less adept in this matter. The two girls were inseparable. They loved each other's company and went everywhere together. Life was wonderful indeed.

Gradually, however, Insulin started to be late for these appointments. This started suddenly without any notice and grew continuously worse. Glucose remained always punctual only to find herself roaming in search of Insulin. When Insulin did finally turn up, she was gloomy and no longer seemed to enjoy people's company. Surely, something weird was going on. One Friday evening, Insulin did not come for their appointment. Glucose went crazy with agony. She kept going to all their favorite places and asking everybody if they had seen Insulin. She also went to houses of all their mutual friends but they would not let her enter. Some of them could not believe she was really Glucose because Insulin was not with her. Others simply paid no attention. People were making noise inside and Insulin was not there to get herself and Glucose inside. Glucose became very miserable. She went to the same

Abstract

In type 1 diabetes, flexible, intensive insulin management improves not only glycemic control but also dietary freedom and treatment satisfaction. Such flexibility has been made possible with the new insulin analogues (as part of a basal-bolus regime) and is now gaining wide applicability, especially among children and adolescents. This approach requires appropriate individualized patient education. Especially for adolescents, the clinician should be able to guarantee insightful participation in direct response to their attitudes, wishes and needs. This patient-and-doctor collaboration is an ever-challenging duty and has the potential to change the future of the individual diabetic patient.

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Key words: Adolescence; Type 1 diabetes mellitus; Freedom; Education; Glycemic control; Insulin

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places all over again but could not find Insulin. It seemed that her best friend had abandoned her for ever.

Glucose was very disappointed. She locked herself in at home and pondered her life. She ate very little and kept losing weight. Later she tentatively started going out. She met some new people and became friends with a girl who, or so she thought, looked like her old friend Insulin but was very different. Unlike Glucose, she was not lively and, rather, wanted to keep strict and predefined appointments. The two girls could not just carelessly have fun together. Glucose was frustrated. She then became friends with another girl but it was the same story again.

One day, however, Glucose overheard a conversation about Insulin's cousin who would soon come their way. Glucose was full of joy and expectations. Perhaps Insulin's cousin would tell her news about her old friend and how she could find her again. So she dressed up and went to meet her friend's cousin. This time, the newcomer looked just like her old friend, Insulin. She even had the same name. But Glucose was distrustful. Luckily, this new Insulin had a vivacious personality and within a few days the two girls got on very well together. Although she had mostly lived abroad, Insulin very flexibly became accustomed to the new place. Glucose instructed Insulin about all her favorite places and all the games they could play together. After this education, the two girls spent endless hours together. It was as if the old Insulin had never gone away. Glucose was happy again.

IMPLICATIONS FOR CLINICIANS

Obviously, this story may have important implications for the clinician. Type 1 diabetes is on the rise^[1] and evidence has shown that flexible, intensive insulin management improves not only glycemic control but also dietary freedom and treatment satisfaction^[2,3]. Such flexibility is possible with the new insulin analogues (as part of a basal-bolus regime) as opposed to the old insulin (e.g. premixed insulin) and is now gaining wide applicability, especially among children and adolescents^[4]. Of major importance, this therapeutic approach requires appropriate patient

education to achieve effective self-management^[4,5]. Education needs to be individualized and flexible in order to cope with every subject's own needs and, at the same time, with modern chaotic society^[6]. Especially for adolescents, this endeavor requires insightful participation by the clinician, ensuring that young people's wishes and needs are respected and met^[7]. Indeed, young patients appreciate medical approaches that are a direct response to their attitudes, wishes and needs^[7]. Ideally, young patients become partners in choosing their own modified therapeutic strategy, thereby improving quality of life and therapeutic compliance as well as minimizing diabetic complications^[5,7,8]. This patient-and-doctor collaboration is an ever-challenging duty for the clinician but it is extremely important to pursue because it has the potential to change the future of diabetes^[8].

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