

The aim of this study was to describe the dermatological complications associated with continuous subcutaneous insulin infusion (CSII) and continuous glucose monitoring (CGM) in adults” Berg et al (2018).

Abstract:

BACKGROUND: In the future, widespread use of closed-loop infusion (artificial pancreas) systems to treat type 1 diabetes (T1D) may significantly improve glycemic control and enhance treatment flexibility. However, the infusion sets and plasters necessary for these treatments can cause dermatological complications that may hamper the spread of the new technology; few studies have investigated these complications in adults. The aim of this study was to describe the dermatological complications associated with continuous subcutaneous insulin infusion (CSII) and continuous glucose monitoring (CGM) in adults.

METHODS: A total of 118 adult patients from two different diabetes clinics completed a questionnaire concerning the dermatological complications associated with their CSII and/or CGM treatment, other treatment variables, duration of diabetes, allergies, skin care, and other pathologies.

RESULTS: CGM or CSII use was associated with current eczema, scars, and wounds. In total, 34% of CSII users and 35% of CGM users currently had one or more skin lesions due to the use of these devices. We found no significant association with glycated hemoglobin (HbA1c) levels, a history of atopic dermatitis, or other skin pathologies. However, multivariate analysis revealed associations with a history of atopy and CSII-associated dermatological complications.

CONCLUSIONS: Dermatological complications were present in one in every three patients and represent a significant challenge to using CSII and CGM to treat adults with T1D. Prospective studies on the causes of these complications will be required to develop preventive strategies and ensure that optimal diabetes treatment approaches that take advantage of the latest technology can be implemented.

Reference:

Berg, A.K., Nørgaard, K., Thyssen, J.P., Zachariae, C., Hommel, E., Rytter, K. and Svensson, J. (2018) Skin Problems Associated with Insulin Pumps and Sensors in Adults with Type 1 Diabetes: A Cross-Sectional Study. *Diabetes Technology & Therapeutics*. June 12th. .

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