PREVALENCE OF SKIN REACTIONS AMONG PEDIATRICS PATIENTS WITH TYPE 1 DIABETES USERS OF GLUCOSE SENSORS

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INTRODUCTION:

Glucose sensors are medical devices used in glycaemic control of patients with type 1 diabetes (T1D) .The rise in the number of users has resulted in the increasing detection of local skin reactions by these devices. Among allergens with sensitizing capacity, the most important is isobornyl acrylate (IBOA). Other allergens are :

2.6- Di-tert-butyl-4-cresol (BHT), colophon, abitol, mixture of sesquiterpenic lactones and N,N-dimethylacrylamide.

AIM: Study the prevalence of skin reactions to glucose sensors (GS) and evaluate which ones are allergic to these substances.

METHODS AND PATIENTS:

Descriptive observational study
in 156 paediatric patients with T1D.

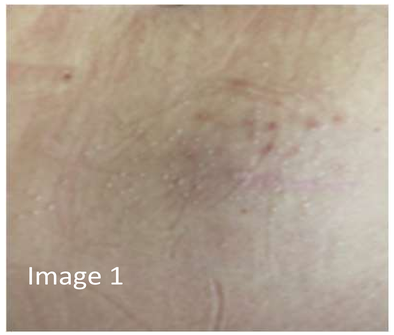
SURVEY OF SKIN REACTION

DO THEY REPORT ANY SKIN LOCAL REACTION?

Image 1

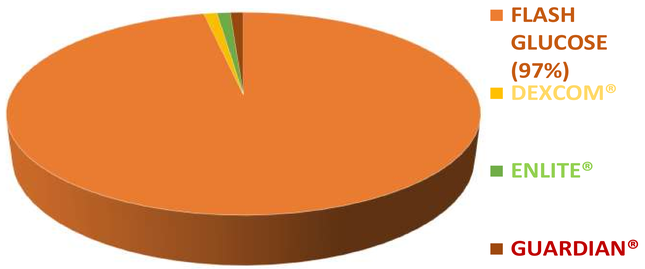
DERMATOLOGIST

Skin-prick tests
Image 2

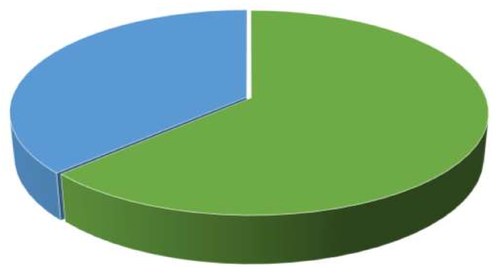


RESULTS: 93 PATIENTS PERFORMED THE SURVEY (49: males, 44: females)

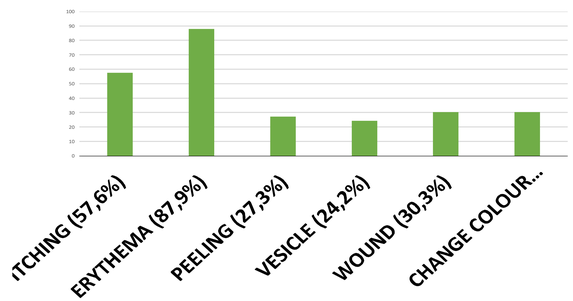
TYPE OF GLUCOSE SENSORS:

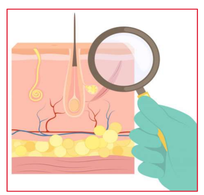


PREVALENCE OF SKIN REACTION:



SELF-REPORTED SKIN REACTION:





10 of 34 patients who suffered a skin reaction were referred to the contact dermatitis unit

2= contact dermatitis
4= allergic contact dermatitis (all flash glucose monitoring system users) caused to: black rubber //colophony rosin // IBOA // colophony rosin + IBOA
2= allergic contact dermatitis to sensor element –not parched-
2= non-contact dermatitis.

CONCLUSIONS: Skin dermatitis is a frequent complaint among glucose sensors users. The results of this study indicate that an evaluation of the skin area where the glucose sensor is placed must be introduced in our daily T1D clinics in order to improve and provide adequate care of our diabetic patients.