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Conclusion: In this sample, we found that patients adopt confrontation strategies more often, in order to solve their diabetes related problems. On the other hand, patients demonstrate less emotional control skills that studies shown to be a major factor in diabetes outcome. These results attest that it is important to investigate coping styles to be able to help the diabetes outcome in patients on CSII.

P-152

SUCCESSFUL DESENSITIZATION IN TYPE 2 DIABETIC PATIENT WITH AN INSULIN ALLERGY WITH GLARGINE AND INSULIN PUMP: A CASE REPORT

G. Petrovski¹, M. Zivkovic¹, I. Ahmeti¹, T. Milenkovic¹, S. Subeska¹, I. Bitovska¹

¹Center for Insulin Pump, University Clinic of Endocrinology, Skopje, Macedonia

Introduction: Insulin allergy are rare but they can occur occur in patients starting insulin therapy. There are different insulin desensitization protocols where insulin is diluted and given to the patient in small doses in a period of couple of days. We are presenting case report in type 2 diabetic patient with insulin allergy, where desensitization was performed using insulin pump (Medtronic Minimed Veo) with glargine.

Case presentation: A 54-year-old man with 8 year history of type 2 diabetes, BMI 27.8 kg/m² was used metformin (2 gr) and glimepiride (4 gr). His average HbA_{1c} was 9.2±0.3% in the last year. In a period of 1 month, different insulin preparation (NPH insulin, glargine, detemir and biphasic insulin aspart/NPH) were used, but patient developed pruritic plaques (3–8 cm) at the injection sites that persisted for several days. Allergologic testing revealed positive reactions against every insulin preparation, with smaller reaction on insulin glargine. Insulin desensitization with glargine was performed using insulin pump (Medtronic Minimed Veo), where insulin was given as basal dose of 4 hour every day in the next 2 weeks, starting with daily dose of 0.1 units and slight increase up to 16 units at day 14th. During the two weeks, there was no reaction at the infusion site. After 2 weeks, the patient continued with insulin glargine using insulin pen (Sanofi Solostar) with titration algorithm (2–4 units increase) for fasting glycaemia of 5.6 mmol. HbA_{1c} decreased to 6.2% in the next 6 months with insulin dose 36 units of glargine and 2 gr of metformin.

Conclusion: As reported in this case, desensitization for long acting insulin (such as glargine) can be successfully performed using insulin pump and may present an easy form of therapy that is successful within a few days.

P-153

PILOT STUDY FOR THE ASSESSMENT OF TOLERABILITY OF PROLONGED CATHETER USE IN INSULIN PUMP THERAPY

A. Pfützner¹, C. Forkel², M. Grenningloh², L. Johannesen², R.A.B.I. Gharabali³, D. Klonoff⁴

¹Diabetes Research Center, IKFE Services - Institute for Clinical Research and Development, Mainz, Germany

²Clinical Research, ClinLogix Europe, Mainz, Germany

³Unomedical, Convatec, Roskilde, Denmark

⁴Diabetes, Mills Peninsula Healthcare Services, San Mateo, USA

Use of insulin infusion sets in insulin pump therapy is recommended for two to three days. However, many patients use the catheters even longer for economical reasons risking adverse events and skin reactions. This study was performed to investigate the tolerability of regular catheter use (two days) with extended use (four days) in a real world setting. Here we report on an interim analysis which was performed with 12 patients (4 men, 8 women, age 47±11 years, BMI: 27.4±3.2 kg/m²), who participated in a prospective open randomized cross-over study with 2×3 month observation periods using the infusion sets for 2 days and 4 days, respectively. The number of treatment related adverse events was 189 with 2 day use vs. 201 with 4 day use (n.s.). The number of catheter related events was 42 with 2 day use vs. 130 with 4 day use (p<0.001). The combination of catheter related and treatment related was significantly favorizing 2 day use (231 vs. 331, p<0.001). Several patients reported a major increase in infusion site problems when extending the usage time to 4 days. Glycemic variability was also less favorable with extended use (e.g. hypoglycemic events: 238 vs. 341 events, p<0.001). In conclusion, using the infusion sets for a longer than recommended usage period of 2 days resulted in a clinically relevant increase in treatment-related tolerability problems and impaired glycemic control. Patients should be encourage to not use insulin pump infusion sets for a longer then recommended time period.

P-154

CARBOHYDRATE COUNTING AND INSULIN PUMP THERAPY HELP CHILDREN WITH TYPE 1 DIABETES TO BETTER COPE WITH DIETARY REGIMEN

D. Tinti¹, A. Scaramuzza², S. Giorda¹, G. Ignaccolo¹, F. Cerutti¹, I. Rabbone¹

¹Department of Pediatrics University of Turin, AO Città della Salute e della Scienza di Torino, Torino, Italy

²Department of Pediatrics University of Milan, Sacco Hospital, Milano, Italy

To investigate the effect of carbohydrate counting (carbsC) on metabolic control and dietary habits in type 1 diabetes children treated using multiple daily injections (MDI) or continuous subcutaneous insulin infusion (CSII). We enrolled 50 children (mean age 9.2±4.3 yrs) with type 1 diabetes for more than 6 months, using MDI (n=31) or CSII (n=19). Patients using MDI were trained in carbsC (n=8) or not (n=23), while CSII patients were all trained in carbsC. Each subject filled a 7-day dietary recall, subsequently evaluated by a skilled registered dietitian. BMI, HbA_{1c}, insulin requirement, self-monitoring blood glucose/day were recorded in each patient. No difference has been observed in BMI, HbA_{1c}, insulin requirement and number of glucose testing in patients using carbsC vs patients not using it. However, number of insulin boluses in carbsC patients was higher than in patients not using carbsC (p<0.01). Moreover, stratifying carbsC users according therapy, HbA_{1c} was significantly higher in MDI than in CSII patients (p<0.05), while number of boluses was significantly less (p<0.01). Patients not using carbsC were more likely to be less flexible regarding dietary regimen (OR 2.333, IC 0.721–7.547) than patients using it, and were more worried when they had to eat outside the home (OR 2.619, IC 0.799–8.588).

CarbsC increases flexibility in dietary regimen, improving dietary habits and CSII seems to favor a even better metabolic control.