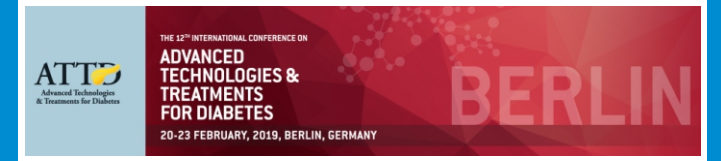




ASSESSING THE BENEFITS OF A PAINLESS LANCING DEVICE IN A SUBSET OF PATIENTS FEARFUL OF FINGER PRICKING



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BACKGROUND & AIMS

- ▶ Self-monitoring of blood glucose (SMBG) has been recommended as the gold standard of glucose monitoring.
- ▶ There are a few patients including children and adults who are fearful of finger pricking, due to either real pain or needle phobia.
- ▶ Pricking the fingertips for glucose monitoring is in fact, more painful than the insulin shots, the latter being virtually painless with the new slender tiny needles.
- ▶ Genteel® is a novel vacuum-based lancing device that claims to be relatively painless by decreasing the depth of lancet penetration and thus decreasing the nociceptive stimuli while lancing.
- ▶ A randomized crossover trial was conducted over 6 months, comparing Genteel® versus conventional lancing device.

METHODS

- ▶ Study subjects: T1DM and T2DM patients on multiple daily insulin injections and fearful about finger pricking for glucose monitoring
- ▶ n=15, age 39.27±18.41y, 40% males, 52.33% T2DM



RESULTS

- ▶ Subjects reported significantly lower pain scores using Genteel® (p<0.0001), and also higher SMBG testing frequency (p=0.0002).
- ▶ The difference in pain scores with Genteel® was also significant when compared with the subject's initial perceived pain score prior to randomization (p<0.0001).
- ▶ Effect size 'r' was determined to be 0.660 (pain score) and 0.602 (SMBG frequency), suggestive of a large effect size difference between the 2 groups.

Parameters Assessed	Genteel Lancing Device	Conventional Lancing Device	p value	Effect size r
Painscore*	5.00±0.00	1.78±0.43	<0.0001	0.660
SMBG testing frequency **	0.66±0.23	0.28±0.16	0.0002	0.602

* To the question 'is pain a limiting factor for regular SMBG monitoring', subjects graded from 1 to 5 (1='very painful and a very strong limiting factor for performing SMBG', 5='not at all a limiting factor') ** [SMBG frequency (Genteel vs. Conventional)]/Total number of SMBG performed

CONCLUSIONS

- ▶ Our results demonstrate the utility of Genteel as a relatively painless lancing device for all ages with fear of pricking and could be a good alternative to the traditional ones.
- ▶ Structured SMBG will invariably improve the glycemic control and long-term outcomes.

REFERENCES

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