INTRODUCTION

Translational human pain models have been proposed to assess the analgesic potential of drugs in early clinical development (H2E study and go/no-go decision, before entering phase III/IV patient studies). The SEI Laser Evoked Potential (LEP) paradigm is one promising method – combined with sensitive imaging tools (SPECT/SPECT) – to assess the potential analgesic efficacy of experimental drugs. LEPs are a well-established tool to assess the local sensitization state of skin (UVB, capsaicin) and various compounds on normal and sensitized skin (UVB, capsaicin).

Laser-EP/LEP, VAS, UV, capsaicin, anti-nociception, anti-hyperalgesia, PoC predictivity, sensitivity, and validity of single dose (SD) compounds approved for treatments of different pain states (UV, selective COX-2 inhibitor) and to support go-/no-go decisions, before entering phase II/III/IV clinical trials (EC and CA approved) by assessing the efficacy of C, D, L, and P in 1 of 10 treatment sequences (Williams Design) and being maintained up to >6h post dose (1% alcoholic extract at -2h pre-dose, 5.5cm in diameter on 3, 4, 5, and 6h post administration (p.a.). Subjects separately underwent multiple (infra-red) CO2-Laser-EP & VAS sessions (10/10, 5, 3, 1, and placebo, with 100% overlap in methodology). Subjects underwent multiple (infra-red) CO2 Laser-EP & VAS sessions (10/10, 5, 3, 1, and placebo), with 100% overlap in methodology. 200mg, 60mg, 100mg, and 150mg & P(-2.68 µV; P<0.0004) – starting between 1 & 2h p.a. vs. placebo in 25 healthy Caucasian volunteers (ECD) and to support go-/no-go decisions, before entering phase II/III/IV clinical trials (EC and CA approved) by assessing the efficacy of C, D, L, and P vs. placebo in 25 healthy Caucasian volunteers.

Normal Skin LEP/CAPSAIN SKIN

CONCLUSIONS

Overall the LEP paradigm – as a “human algesimetric model” – seems to have value when implemented in early analgesic drug development. Skin sensitized with either UVB or capsaicin remains to be established.

LEP PRINCIPLE & ANALGESIC EFFECT

REFERENCES

Analgesic

UVB skin – were most effectively attenuated by a SD of the selective COX-2 inhibitor Celecoxib. For all other skin conditions established.

Lanczos, enhancing the transmission of sodium channels, was most effective in these LEP/VAS paradigms.

Overall the LEP paradigm – as a “human algesimetric model” – seems to have value when implemented in early analgesic drug development. Skin sensitized with either UVB or capsaicin remains to be established.

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