

## P01-27

### ACETYLCHOLINESTERASE-INHIBITORS IN THE TREATMENT OF TOBACCO DEPENDENCE

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**Background:** Although alcohol-dependent smokers represent an important group for applying smoking interventions, sufficient pharmacotherapy has not been established in this high-risk group so far. Acetylcholinesterase-inhibitors inhibit the breakdown of Ach. The retention time of this neurotransmitter is prolonged and thereby the efficiency of cholinergic neurotransmission at nAChRs is enhanced. Thus, we suppose a possible substitution of neuronal nicotine effects.

**Method:** In order to examine the effect of acetylcholinesterase-inhibitors on tobacco dependence, we performed clinical-pharmacological studies on alcohol and tobacco dependent patients who had already completed an alcohol detox. We investigated galantamine (with positive allosteric modulation, n=114, randomized placebo controlled over 24 weeks) and rivastigmine (without allosteric modulation, n=26, randomized, placebo controlled over 12 weeks) and assesses smoking behavior (diaries, FTND, CO measurements) as well as craving for tobacco (QSU) and alcohol (AUQ).

**Results:** Galantamine (Diehl et al., 2006) as well as rivastigmine (Diehl et al., 2008) led to a significant smoking reduction (galantamine: -20% after 24 weeks, rivastigmine: -30% after 12 weeks) without compromising the alcohol abstinence. Patients taking rivastigmine also experienced a significant reduction of nicotine craving (-20%), without any other specific pharmacological or psychotherapeutical action to support the smoking cessation.

**Conclusion:** Our preliminary data indicate an effect of galantamine and rivastigmine on tobacco craving and consumption in alcohol dependent smokers. These pilot studies encourage further investigation of acetylcholinesterase-inhibitors as a promising treatment approach regarding tobacco dependence.