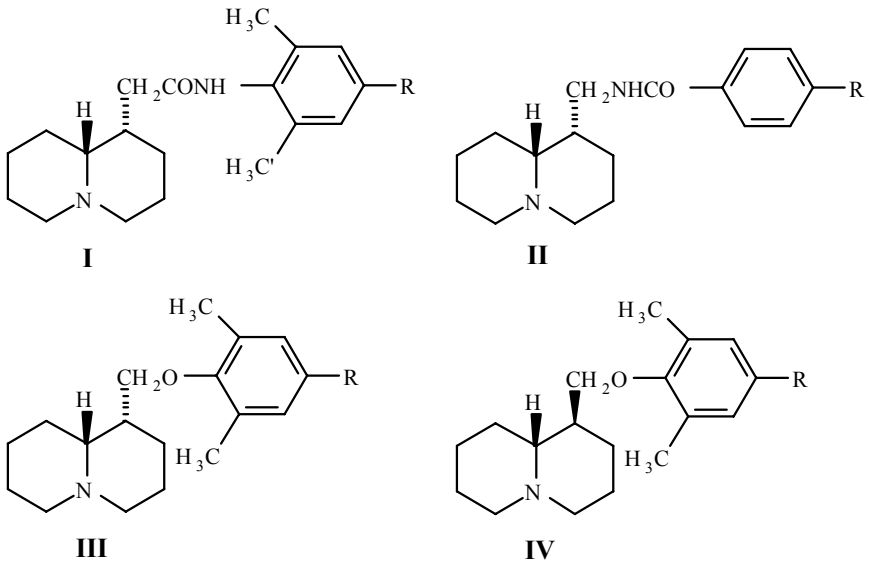
# NOVEL QUINOLIZIDINYL DERIVATIVES AS ANTIARRHYTHMIC AGENTS

I. Vazzana[a], E. Terranova[a], R. Budriesi[b], P. Ioan[b], A. Chiarini[b], F. Sparatore[a]

[a]Department of Pharmaceutical Sciences, University of Genoa,
Viale Benedetto XV-3, 16132 Genova, Italy
[b]Department of Pharmaceutical Sciences, University of Bologna,
Via Belmeloro 6, 40126 Bologna, Italy

On the pattern of well known N-(dialkylaminoalkyl)anilides, particularly of lidocaine and pilsicainide, a set of N-homolupinanoyl anilides was prepared in the past [1] and found endowed with strong antiarrhythmic activity *in vitro* and *in vivo* tests. These compounds exhibited an unusual pharmacological profile, being devoid of local anaesthetic activity, $Ca^{2+}$ channel and β-adrenergic blocking activities. Since these peculiarities might be connected to the presence of the quinolizidine nucleus, new sets of compounds bearing this nucleus linked to different aromatic moieties (structures **I**-**IV**) have been prepared.




R= H; $NO_2$; $NH_2$; $NHCOCH_3$; $NHSO_2CH_3$; CO-Ar

Compounds of structure **III** and **IV** are somehow related to the 2,6-dimethyl-4-R-phenoxyalkylamines described by Mátyus et al [2], which exerted antiarrhythmic activity through the simultaneous block of $Na^+$ and $K^+$ channels.
The novel compounds are studied using isolated guinea pig dx atria spontaneously beating and Langendorff retrogradely perfused heart. Functional assays on adrenergic receptor subtypes are also performed.

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[1] A. Sparatore, F. Sparatore. Farmaco 50 (1995) 153-166
[2] P. Mátyus, T. Rettegi, A. Varró, J. G. Papp. Med. Res. Rev. 20 (2000) 294-303