UITNODIGING

Voor de openbare verdediging van het

Doctoraatsproefschrift van

Vincent UMBRAIN

donderdag 4 juni 2009
U wordt vriendelijk uitgenodigd op de
openbare verdediging van het proefschrift
van
Vincent UMBRAIN

‘Optimising the therapeutic use of
local anaesthetics.
From microdialysis of the rat spinal
cord and liposomal encapsulation, to
clinical trials’

Op donderdag 4 juni om 17 uur
in auditorium R. Vanden Driessche van
de Faculteit Geneeskunde & Farmacie,
Laarbeeklaan 103, 1090 Brussel

Situering van het proefschrift

Local anaesthetics (lidocaine, levobupivacaine,
ropivacaine, bupivacaine) are useful analgesics.
Administered for neuraxial or for nerve blockade,
their use may however lead to harmful side
effects.

We studied mechanisms and local side effects of
local anaesthetics after intrathecal administration
of lidocaine or levobupivacaine. We found
transient increases of PGE2, glutamate, aspartate
and taurine in CSF dialysates in a in vivo spinal
cord microdialysis setting of the rat. We
suggested a relation with the clinically observed
transient neurologic symptoms which is
sometimes observed after intrathecal lidocaine
administration.

We selected the most appropriate liposome type
for neuraxial administration after a study of their
extradural biodisposition in rats. In humans, pain
relief and levels in plasma and in CSF after
epidural administration of bupivacaine-
encapsulated liposomes showed the limitations of
our formulation and incited to further research.

We also investigated the most suitable
ropivacaine dose for cervical plexus block. Doses
of 225 mg or 150 mg did not show more toxicity
than 112.5 mg but delivered a better quality of
block both for the patient and the surgeon.

Curriculum Vitae

Vincent Umbrain was born in Bruges in
1961. He obtained his primary and
secondar school degrees in 1978. He
He started his Anaesthesia training in the
AZ-VUB in March 1986. Five years later,
after a 6-month period in het Stedelijk
 ziekenhuis of Roeselare and 1-year stay in
the Erasmus Hospital in Brussels (ULB), he
became a board certified anesthesiologist
(1991). From then on, he stayed in the AZ-
VUB to further develop his areas of interest:
cardiovascular anaesthesia and fundamental
research. He became a Diplomate of the
European Academy of Anaesthesia and
Intensive Care in 1990. He went to Paris,
London and Rotterdam to learn the
subtleties of the paediatric cardiac
anaesthesia in 1992. He is a member of the
Belgian Society of Anaesthesia and
Reanimation, the European Society of
Anaesthesiology (ESA) and of the American
Society of Anesthesiology (ASA). He is
currently working as a Chief of Clinic mainly
covering cardiovascular anaesthesia in the
Department of Anaesthesiology and
Perioperative Medicine. He is part of a team
developing an electronic anaesthesia chart
data base covering the pre, -per and
postoperative period. His 24 publications (of
whom 12 as a first author) cover laboratory
and clinical investigations. He lectured 30
times in national and international
presentations in regarded anaesthesia and
neuroscience congresses. He presented 78
posters. Moreover, he is a regular reviewer
for several international Journals.