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## **P. Kintz, P. Marquet (eds): Buprenorphine therapy of opiate addiction**

**Humana Press, Totowa, New Jersey, 2002, pp 148 (ISBN 1-58829-031-X)**

Published online: 29 October 2002

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The 21 authors of this interesting book deal with the theme of buprenorphine therapy of opiate addiction from the various aspects of their different fields including clinical pharmacology, legal medicine, toxicology, psychiatry and social science.

Pierre Marquet introduces the pharmacology of buprenorphine. Discussions on the different routes of administration and their resulting bioavailabilities, the distribution in the body, the metabolism and excretion are presented in a concise style. On the basis of the affinity of buprenorphine to the opioid receptors, the special properties of this partial agonist/antagonist with regard to the duration of action, analgesia, euphoria, respiratory depression as well as opiate tolerance are reviewed.

Two authors from NIDA review controlled drug administration studies of buprenorphine in humans with the main focus on its use as a replacement maintenance medication in treatment of opioid addiction. Also questions of buprenorphine bioavailability following different routes of administration, dose effect profiles, abuse liability and toxicity are discussed. Furthermore the relatively high dose of buprenorphine in treatment of opioid dependence in comparison with treatment of pain is reviewed. Concise information is given on the questions of safety and side-effects of buprenorphine treatment.

A special chapter is dedicated to the combination of buprenorphine with the opioid receptor agonist naloxone. This combination should prevent and reduce the abuse of buprenorphine on the black market. Experiences with different combinations of opioids and opioid receptor agonists from the past are reviewed. Also the complex and controversial action of buprenorphine-naloxone combinations are discussed on a pharmacological basis and clinical aspects are shown from a pharmacokinetic/pharmacodynamic

point of view, regarding different routes of administration, as well as potential opioid-dependent and non-opioid-dependent abusers.

A description of the French policy of buprenorphine maintenance treatment since 1995, also called the “French model” is presented. Experiences with respect to special questions such as treatment of drug addicts in prisons, misuse, toxicity and overdosing of buprenorphine are summarised.

The buprenorphine concentrations in blood or urine samples of patients treated with buprenorphine or abusers of buprenorphine are very low, compared to other opioids. Consequently a separate chapter deals with analytical techniques for the determination of buprenorphine in biological specimens. In this chapter a general survey of analytical techniques with the focus on recent HPLC and GC methods is given. Biological matrices such as blood, urine, tissue samples and hair are treated in separate sections.

Very interesting information about buprenorphine concentrations, found in 137 buprenorphine-related fatalities in France since 1996 is presented by P. Kintz. By turning his attention to buprenorphine fatalities, Kintz also points out the risks which are associated with the buprenorphine therapy. In this context, it is interesting that in nearly all of the cases a concomitant abuse of other centrally acting substances (e.g. ethanol, benzodiazepines, neuroleptics, other psychotropics or narcotics) could be ascertained. For the evaluation of fatalities in association with buprenorphine this chapter and especially the cited references, some of them unfortunately written in French, are of great value.

The last three chapters of the book refer to the topic of buprenorphine maintenance therapy during pregnancy and its implication on neonates with regard to the pharmacology of opiates during pregnancy, the results of a case-control study of neonates born to mothers undergoing buprenorphine maintenance therapy and the perinatal morbidity and neonatal withdrawal syndrome in children of mothers undergoing either methadone or buprenorphine maintenance therapy.

This book represents a compendium of review articles, which covers the different areas of buprenorphine therapy of opiate addiction. From the aspect of forensic medicine and forensic toxicology, especially the multitude of pharmacology data, the description of analytical procedures and information on buprenorphine fatalities are of great value. Also the extensive lists of references cited, which are very useful for the interested reader, must be commended.

Disadvantageous and unpleasant for the reader are the frequent repetitions in the introductions of the single chapters. Also the short alphabetical index is of little value for a selective search.

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