TITLE: POSTOPERATIVE ALCOHOL WITHDRAWAL SYNDROME PROPHYLAXIS VERSUS THERAPY

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The postoperative intensive care management of alcohol abusers remains to be controversial. Hansbrough et al.[1] suggested the intravenous application of ethanol for the prevention of withdrawal symptoms (WS), whereas Helmus and Spahn[2] recommended symptomatic and supportive treatment.

The purpose of this prospective study was to compare the prophylaxis versus the symptomatic therapy of established WS in alcohol abusers in an intensive care unit (ICU).

50 patients were included in this study (with informed consent and approval by the local Ethical Committee). All of them underwent neck dissection and resection of tumors of the hypo/oropharynx or larynx, resulting in at least 48 h of postoperative intensive care. Preoperatively, addiction to alcohol was evaluated by clinical examination and the Munich alcoholism test (MALT)[3]. 31 patients were not classified as alcohol abusers (<100 g ethanol/day, negative MALT) and none of them developed WS postoperatively. 19 patients with an alcohol consumption of >100 g/day and positive MALT were diagnosed as alcohol abusers. They were randomly divided into two groups. Both groups were comparable with respect to age, daily ethanol consumption and years of abuse. Postoperatively, group I (n=10) received continuous intravenous ethanol infusions (3-6 g/h), whereas group II (n=9) received none. When WS were recognized, treatment with haloperidol and clomethiazole was initiated. None of the patients of group I had any WS, in contrast to 6 patients of group II, the difference was significant ($p<0.01$; Fischer-Test). Major WS (delirium tremens) occurred in 3 patients of group II, necessitating respiratory support for at least 4 days. The mean period of intensive care therapy was shorter in group I than in group II (3.0 vs. 11.5 days; $p<0.05$; Wilcoxon-test).

We conclude that specific examination and the use of MALT are reliable for the identification of alcohol abusers who are at a high risk for the development of postoperative withdrawal symptoms. Further, postoperative continuous ethanol infusions (3-6 g/h) prevent the occurrence of withdrawal symptoms and should be administered to severely alcoholic patients.

REFERENCES
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TITLE : INTERMITTENT MANDATORY PRESSURE RELEASE VENTILATION (IMPRV) IN PATIENTS WITH ACUTE RESPIRATORY FAILURE

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IMPRV is a new spontaneous breathing ventilatory mode derived from airway pressure release ventilation in which PEEP is released intermittently and synchronously with patient's spontaneous expiration in order to provide ventilatory assistance.

Sixteen critically ill patients with mild ARF were studied : group 1 was composed of 8 patients free of any factor known to alter ventilatory mechanics ; group 2 was composed of 8 patients whose spontaneous respiratory activity was markedly altered by a flail chest (n=3), or by a C5 tetraplegia (n=3) and/or by the administration of narcotics (n=5). CPAP and IMPRV were administered to each patient in a random order at the same mean airway pressure (12 cmH2O) during a one-hour period using a CESAR ventilator (CFPO, France). During IMPRV, PEEP was released from 14 cmH2O to 6 cmH2O every two spontaneous breaths. Gas flow, tidal volume, tracheal pressure, esophageal pressure, lung volume above FRC (indirect spirometry) and hemodynamic parameters (Swan-Ganz catheter) were continuously recorded.

In group 1 patients, the ventilatory assistance provided by IMPRV was associated with a significant decrease in spontaneous tidal volume whereas all other respiratory parameters remained unchanged. In group 2 patients, IMPRV increased minute ventilation from 8.0 ± 2.6 l/min to 12.2 ± 1.8 l/min ($p<0.05$), decreased $\overline{PaCO2}$ from 46 ± 7.3 mmHg to 38 ± 6.8 mmHg ($p<0.05$) and reduced respiratory frequency from 21 ± 10 bpm to 14 ± 5.7 bpm ($p<0.07$). Individual $\overline{PaCO2}$ changes are represented in the figure. Peak airway pressure was slightly higher during IMPRV than during CPAP (20 ± 1.6 cmH2O vs 16 ± 0.8 cmH2O in group 1, $p<0.01$; 20 ± 1.7 cmH2O vs 17 ± 1.4 cmH2O in group 2, $p<0.01$).

These results show that IMPRV provides significant ventilatory assistance to patients with acute respiratory failure either by decreasing patient's contribution to minute ventilation (group 1), or by increasing alveolar ventilation in presence of respiratory depression of central or peripheral origin (group 2).