INVITED COMMENTARY

THE ALCOHOL PATIENT AND SURGERY

HANNE TÔNNESEN

Department of Surgical Gastroenterology, Hvidovre Hospital, University of Copenhagen, DK-2650 Hvidovre, Denmark

(Received 12 May 1998; in revised form 18 August 1998)

Abstract — Alcohol abusers have a threefold increased risk of post-operative morbidity after surgery. The most frequent complications are infections, cardiopulmonary insufficiency, and bleeding episodes. Pathogenesis is suppressed immune capacity, subclinical cardiac dysfunction, and haemostatic imbalance. The economic implications of alcohol abuse in surgical patients are tremendous. Intervventional studies are required to reduce future increases in post-operative morbidity.

INTRODUCTION

Alcohol abuse is often followed by medical disorders, such as hepatic cirrhosis, pancreatitis, polyneuropathy, and cardiomyopathy. It seems obvious that surgical intervention in an alcoholic patient suffering from one or more of these disorders may be associated with increased morbidity. However, recent studies report that operations on asymptomatic abusers are also associated with increased post-operative morbidity (Felding et al., 1992; Tônnesen et al., 1992a; Stopinski et al., 1993; Jurkovich et al., 1993; Spies et al., 1996).

In surgical terms, alcohol abuse is defined as consumption of at least 60 g of ethanol/day, corresponding to five drinks/day, for at least 6 months. One standard drink contains 12 g of ethanol, corresponding to 360 ml (12 oz) of beer, 180 ml (6 oz) of wine, and 45 ml (1.5 oz) of spirits.

Some studies have included alcohol-dependent patients (Passari et al., 1993; Macnamara et al., 1994) who met the criteria of DSM-III-R (Spies et al., 1996) or MAST (Tônnesen et al., 1992a; Jurkovich et al., 1993; Ring and Sattler, 1994). Post-operatively, the dependent patients may develop an alcohol-withdrawal syndrome, which should be included in the register of complications after surgery.

POST-OPERATIVE MORBIDITY

Increased risk of complications is seen after minor and major surgery, as well as after elective and emergency procedures (Table 1). In studies of predictors for post-operative outcome, alcohol abuse is an important factor (Pelczar et al., 1993; Pittet et al., 1993), whereas the association between alcohol abuse and complications following surgery no longer exists when the alcohol history is reduced to drinker or non-drinker (Eubanks et al., 1993; Beckhardt et al., 1994; Berge and Gilhus-Moe, 1994; Marcantonio et al., 1994; Weed et al., 1995).

The most frequent complications are focal and disseminated infections, cardiopulmonary insufficiency requiring intensive care, bleeding episodes demanding blood transfusion, and delayed healing of tissue resulting in leakage of bowel anastomoses and wound defects (Tônnesen et al., 1988, 1991, 1992a; Jones et al., 1991; Sonne and Tônnesen, 1992; Felding et al., 1992; Passari et al., 1993; Jurkovich et al., 1993; Stopinski et al., 1993; Ring and Sattler, 1994; Macnamara et al., 1994; Spies et al., 1996).

Infections account for most of the post-operative complications. Superficial and deeper abscesses at the operation site are very common together with pneumonia and cystitis. In addition,