



G11 Death at Dinner: Foreign Body Asphyxiation – An Unknown Cause of Death in the Elderly?

Andrea M. Berzlanovich, MD, Institute of Forensic Medicine, University of Vienna, Sensengasse 2, A - 1090 Vienna, Austria; Thomas Waldhoer, Institute of Cancer Research, Department of Epidemiology, University of Vienna, Borschkegasse 8a, A - 1090 Vienna, Austria; Ernst Sim, MD, Meidling Traumatology Center, Kundratstraße 37, A - 1120 Vienna, Austria; Peter Fasching, Geriatric Center Baumgarten, Huetteldorferstraße 188, A - 1140 Vienna, Austria; and Manfred A. Muhm, Department of Cardiothoracic Anesthesia and Intensive Care Medicine, University of Vienna, Währingerstraße 18 - 20, A - 1090 Vienna, Austria*

Food asphyxiation is a common problem whenever and wherever people eat. Knowledge of predisposing factors might help to prevent asphyxial deaths.

The authors reviewed 42,745 consecutive autopsies done during an 18-year period (1984 to 2001) at the Institute of Forensic Medicine, Vienna. Demographic features and predisposing factors were determined for the 232/42,745 (0.5%) cases of fatal foreign body asphyxiation.

There was a predominance of men (134 men, 98 women); the overall male-to-female ratio was 1.4:1. 105/232 persons (44 males, 61 females) were aged 65 years or older. 69% of the fatal incidents occurred in private homes, about 15% in a restaurant. The remainder died in nursing institutions (9.5%), public areas (5%), or in hospitals (1.5%).

On 137/232 (59%) occasions observers were present at the time of the incident and subsequently called the Emergency Service. In 125 (91%) cases, neither the observing laymen nor the majority of the emergency medical technicians and physicians who would have been able to intervene recognized the definite diagnosis. Only 12 cases, most of all victims younger than 65 years, have been correctly identified during cardiopulmonary resuscitation. Misdiagnoses were cardiovascular failure (59%), intoxication from medication, drugs or alcohol (26%), and epileptic seizures (10%).

By medical history 21% were considered to be chronic drinkers. Blood alcohol concentration was determinate in all of the 232 cases. 44% of the victims were sober at the time of death. The other deceased (56%) had blood alcohol levels ranging from 0.05 % to 4.35 %. In another 39 (17%) corpses, findings from toxicological analysis were positive for sedative and/or hypnotic drugs.

Only 22 (9%) victims had intact dentition. 29% had partial or complete dentures, 25% were edentulous, and 37% had defective or partial dentition without dental prostheses at the time of death.

The food most often choked upon was either a segment of unchewed meat (48%) or a large piece of sausage (20%). A bolus consisting of bread, cheese, egg, cookies or pastries was found in 14%, while fruit or vegetables accounted for another 7%.

In 71% the obstructing foodstuff or other foreign objects were located in the supraglottic region or within the glottis itself, presumably in reach of fingers. In the other cases (29%) the bolus was lodged in the infraglottic area.

Concomitant with the advanced age groups is the problem of inadequate dentition. Whereas meat and sausages were the obstructing food in all cases of the people with intact or defective dentition - soft, friable, or loosely textured foods were found predominately in the edentulous, elderly victims. Future improvements in rescue techniques should take this into consideration.

Such fatal accidents could have been prevented easily. Effective prevention depends on understanding of the nature and frequency of the accidental asphyxial deaths, the facts that led to their occurrence, and a high degree of suspicion.

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