Drowning and Near-drowning—Some Lessons Learnt

S H Goh, MBBS, FRCS (Edin) (A&E), B Y Low, FAMS, MBBS, FRCS (Edin, Glas)

Abstract

Over a period of sixteen months, 17 cases of submersion injury (encompassing victims of drowning and near-drowning) were attended to at our Accident and Emergency Department at Changi General Hospital. Most of the victims were inexperienced recreational swimmers, and in 6 of them, early bystander cardiopulmonary resuscitation enabled them to recover without severe morbidity. Non-cardiogenic pulmonary oedema with resulting chest infection was the commonest complication in survivors. Most of the episodes occurred in an urban setting in swimming pools without supervision by lifeguards. About two-thirds of the cases were adults over the age of fifteen years. In addition, there were patients in whom submersion injury was associated with more sinister conditions (fits, traumatic cervical spine injury, dysbarism, intoxication from alcohol or drugs), some of which were unsuspected by the doctors initially. Apart from the immediate threats of hypoxia and pulmonary injury, active search for any possible precipitating causes and associated occult injury should be made. In this study, the determinants of survival from near-drowning were early institution of cardiopulmonary resuscitation, presence of pupil reactivity, and presence of a palpable pulse and cardiac sinus rhythm.

Key words: Environmental injury, Immersion accidents, Prognostic factors in near-drowning, Pulmonary injuries from drowning, Submersion injury, Unsuspected causes of drowning