Athletes' Deaths

Sm.—In your leading article "Athletes' Deaths" (3 October, p. 4) you point out that heart failure in athletes may be due to coronary heart disease, or congenital abnormality of the coronary arteries, or chronic myocarditis, or a cardiac tumour. In this State we carry out coroner's necropsy examinations in the large majority of sudden or unexpected deaths and in the course of the years we have seen almost 100 examples of sudden death in young adults. In many deaths death occurred while the individual was at rest or had undertaken mild physical activity. In none of our cases of sudden death in young adults did we find any of the four conditions listed above, although we have seen viral myocarditis in young children. In the majority of our patients there was no disease of the coronary arteries but there was significant scarring of the myocardium, and in these individuals a consistent finding was hypoplasia of the aorta. A report on the earlier cases has been published.

This finding has not been reported elsewhere and I suggest it be kept in mind as a possible cause of sudden death in young adults.—I am, etc.,

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REFERENCE

Laurie, W., Medical Journal of Australia, 1968, 2, 716.

Hyperpyrexia after Anaesthesia

Sm.—The incidence of malignant hyperpyrexia has brought a cloud to the sky of clinical anaesthesia. We report here a case which displayed two of the features of the recognized triad—hyperpyrexia and metabolic acidosis—without any apparent hypotonicity, and which had a history of uneventful anaesthesia a week previously.

A fit man of 59 underwent a laparotomy for large bowel neoplasm, and a left hemicolectomy was performed. Anaesthesia on this occasion was induced with thiopentone, tubocurarine, and phenoperidine, and was maintained with intermittent positive pressure ventilation, but no halothane was used. Two days postoperatively his temperature rose to 101°F. (38.5°C.) and remained around this level for a further five days, though his electrolytes and fluid balance were kept within normal limits. A diagnosis of ischaemic disease of the bowel was made, and it was decided to re-open his abdomen.

Before coming to theatre his blood gas analysis was pH 7:39; Pco2 90; NaHCO3 22:2; base equivalent -2.0; Po2 110 mm. Hg.

Anaesthesia was induced using thiopentone, pancuronium, phenoxyine, and maintained with intermittent positive pressure ventilation; again no halothane was used. On re-opening the abdomen it was observed that perfusion of the tissues was poor, and the patient's temperature was found to be 105°F. (40-5°C.). Immediate steps to effect cooling were taken (jugular infusion of fluids through a coil placed in ice, and bags of ice on the patient's precordium) and 500 mg. of hydrocortisone were given. The temperature fell to 102°F. (39°C.) and an improvement in the perfusion of the gut was noticed by the surgeon. A small perforation was found at the site of the anastomosis which was undone and brought to the surface. A tracheal tug was evident on decarburisation, and blood gas analysis showed a severe metabolic acidosis: pH 7:03; Pco2 72; NaHCO3 13-5; base equivalent -15. Ninety ml. of 5-6% sodium bicarbonate were given, and the patient was maintained on a Bird mark 8 respirator, using the patient triggering device. Temperature on returning to the ward was 102°F. (39°C.).

Three hours later his blood gas analysis was pH 7:18; Pco2 90; NaHCO3 26; B.E. -2.2. In view of the high Pco2 ventilation was then controlled using phenoperidine to depress his respiratory drive, and vigorous endobronchial suction was performed. Six hours later he recovered consciousness, and, as his blood gas analysis was found to be normal, he was extubated. His temperature was 101°F. (38-5°C.) but fell to normal within 24 hours.

In comparison with other cases reported, the pyrexia was moderate (105°F. (40-5°C.) was the highest observed) and there was no apparent muscle rigidity, but there was a severe metabolic acidosis and pyrexia, which can hardly be dissociated from the anaesthesia and surgery which the patient underwent. The possibility of bacteremic shock as a cause of the pyrexia would appear to be excluded by the fact that the blood pressure never fell below 100 mm.Hg during the operation.—We are, etc.,

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REFERENCES


Laparoscopy Hazard

Sm.—My attention has been drawn to an accident which occurred during gas insufflation of the abdomen for laparoscopy. Cardiac arrest was thought to have occurred as a result of overdilatation of the peritoneal cavity with carbon dioxide, and the patient died three weeks later.

The technique of gas insufflation has been described by several authors, and the