Motor-cycle scrambling injuries in boys

Motorcycle scrambling is a well-established sport among adults, but a "youth" section has now been formed for boys aged 6 to 16. Because of recent concern1 over the fact that accidents are the commonest single cause of death in childhood after the first year,2 I reviewed the injuries sustained by 14 boys in scrambling accidents in 1976-7 to see how dangerous the sport really is.

The sport

Motorcycles are raced around winding hilly circuits over rough ground. The machines are specially modified for this, and they are also made smaller for boys—80 to 125 cc depending on age. Speeds can reach 55 mph on the flat, but it is the skill in negotiating the course that really counts. Often over 100 riders take part in each event.

Patients and injuries

Records were made of the injuries sustained during motorcycle scrambling by boys who were treated in the casualty department, North Lonsdale Hospital, Barrow-in-Furness, during 1976 and 1977. There were 14 victims from a total of 30 races, in which 2766 riders took part. The incidence of injuries was therefore one in 200 rider-races.

Two patients were admitted to hospital. One, who was aged 12, had closed fractures of the tibia and fibula requiring reduction and was kept in hospital for three days. The other, aged 14, was admitted overnight with concussion. The remainder were treated as outpatients (see table). None of the 14 developed complications.

Comment

This study is of limited scale but shows that the sport is no more dangerous than other childhood activities. An Oxford study3 of 154 horse-riding injuries requiring admission to hospital showed the dangers of this sport, especially in children. Many injuries were serious and head injuries were common. Poor adult supervision and inadequate protective gear, especially headgear, were partly to blame. In an American study21 adolescents aged 9-16 years suffered serious injuries while operating minibike motorcycles and go-karts.1 The victims were all untrained and unsupervised. Even pedal-cycle injuries can be serious.2

It is impossible to compare statistically horse riding injuries with motorcycle scrambling injuries. Nevertheless, scrambling has two factors in its favour. Firstly, virtually no height is involved in a fall; the ground is usually soft mud; and one or both feet remain close to the ground during difficult manoeuvres. Secondly, risk of injury is lessened because strict national standards apply to the supervision of races by responsible adults. Adequate instruction is given before a boy begins racing, and regulation crash helmets, riding suits, and racing boots at least protect the head and skin.

Motorcycle injuries in children have not been reported previously. The incidence obtained in this study does not justify this sport being selectively criticised in comparison with other childhood activities.

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2 de Wardener, H E, Lancet, 1956, 1, 1037.
5 Bengsson, G, and Bengsson, U, Clinical Nephrology, 1976, 6, 518.

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Bubble clicking in pharyngeal aspires of newborn babies

The idiopathic respiratory distress syndrome (RDS) is the commonest cause of death in preterm babies and is caused by a deficiency of lung surfactant. Surfactant has a low surface tension and its major component is dipalmitoyl lecithin. The lecithin : sphingomyelin (L : S) ratio of amniotic fluid is now often used to predict before birth whether RDS will develop. It has also been measured in pharyngeal and tracheal aspirates.4

Bubble clicking occurs in lung foam3 and is absent in bubbles from the lungs of babies who die from hyaline membrane disease.4 We first observed clicking in bubbles in amniotic fluid and have now applied the same test to pharyngeal aspirates.

Patients, methods and results

Pharyngeal aspirates were obtained at birth from 102 infants; 54 were born at term and 48 at 25-37 weeks' gestation. RDS was diagnosed if two or more of the following signs were present on the first day of life and lasted longer than 24 hours: respiratory rate greater than 60 per minute; expiratory grunting; and costal, intercostal, or sternal recession. Nineteen babies had RDS according to these criteria. Five babies died and hyaline membrane disease was confirmed at necropsy. The clicking test1 was carried out on bubbles produced artificially in the aspirate and suspended in air-free water. The bubbles are observed through a microscope, and if the result is positive...