Mr. O. Khan

SKATEBOARD INJURIES — A CURRENT APPRAISAL

M. Sheila CHRISTIAN, FRCS
and
O. KHAN, FRCS

*Accident and Emergency Department,
Wexham Park Hospital, Slough*

M. Sheila Christian

ABSTRACT

One hundred and nineteen cases of injuries sustained by skateboard users are reviewed. A significant proportion of the injuries sustained were fractures. The absence of adequate protective measures was noted. A decrease in the popularity of the sport, as judged by the annual incidence of skateboard injuries, is apparent in this series.

INTRODUCTION

The skateboard is a small mobile platform provided with four wheels on which one foot rests but to which it is not fixed or harnessed in any way, one foot being left free for the propulsion, acceleration and directional guidance of the skateboard. There is no form of mechanical braking system and propulsion and guidance by means of the free foot can produce speeds of up to 40 mph or more (Rogers, 1979) particularly in the more expensive and smoother running editions of the skateboard.

MATERIAL

In 1979, 119 patients attended the Accident and Emergency Departments of the hospitals in the East Berkshire District who had sustained injuries when using their skateboards. All these patients had fallen off their skateboards whilst travelling at varying speeds, the speeds being impossible to estimate, but none of the injuries resulted from collisions between skateboards and their riders. Usually they were the result of a fall by the inexperienced rider and the speed attained was faster than the rider's ability to manipulate his direction and acceleration.

The age distribution of the patients was predominantly of the under fifteens. Those over 20 were mainly the parents

of the children, tempted to test their own skills on the skateboards (Fig. 1).

Fig. 1

RESULTS

Of those injuries, 57.1% had soft tissue injuries only (Figs. 2 and 3) while 42.9% had a variety of fractures, some associated with insignificant injuries to other parts of the body. This is comparable to the series by Illingworth et al (1978). The nature of the soft tissue injuries varied from grazes and bruising to lacerations requiring sutures (Fig. 4) but none of these patients

Fig. 2

Fig. 3

Fig. 4

required hospitalisation. Fractures of the forearm were the most common of the broken limbs (Fig. 5) and took up a considerable amount of time in arranging treatment, reduction under a general anaesthetic of the fractures followed by out-patient fracture clinic follow-up.

95% of the attenders had no form of protective clothing or appliances whatsoever. Six patients who sustained a

Fig. 5

head injury and concussion required admission to hospital for not more than 48 hours observation but none had any underlying fracture of skull. In this group no child was wearing any appropriate protective head gear at the time of the accident. Two of the ten patients who were admitted sustained a fractured femur and one a fractured pelvis. None of the patients who attended required to undergo a laparotomy although other series have reported more serious injuries and fatalities (Jacobson and Keller, 1977; Lister, 1978; Daily Telegraph, 1977).

DISCUSSION

This sport has its critics (The Times, 1978) and its supporters (Wilson, Jeffries and Little, 1977) but on the whole it has proved to be very expensive and produces additional work in already busy Accident and Emergency Departments. Although the Times newspaper (Glasgow, 1977) regards skateboards as a marvellous invention this sport was considered a genuine hazard since reports of serious injuries and even fatalities have occurred.

In larger cities skateboard parks have opened for the safety of these children to practise their skills with care and sometimes supervision, but children are still seen in towns and may represent a real hazard not only to pedestrians but also to road traffic. It is not uncommon to see skateboards used as a form of transport for children obviously going on shopping expeditions and recent trend noted has been the take-over by young cyclists of skateboard parks for use as an "adventure" cycle track. The coexistence in the same area of cyclists and skateboarders must represent a potentially lethal mixture.

In this series protective padding and helmets to minimise injury were rarely worn, probably due to the expense of the available equipment. A review of existing protective equipment, which includes elbow and knee pads and a lightweight helmet, would indicate that no real protection would be given from this type of equipment against fractures of forearm bones, and the

helmets to protect the skull against head injuries sustained whilst travelling at 30 mph or more must be of the standard of the conventional motorcyclists' helmets.

There is every indication that the initial enthusiasm for this sport is now declining. In this series 50% of the cases were seen within the first three months of last year, the numbers slowly dropping and now reaching what is probably a more realistic incidence with occasional peaks at Christmas and during long school holidays.

RECOMMENDATIONS

- 1 Skateboarding should be permitted in recreational areas and play streets only. Separate skateboard

areas in multipurpose areas and specially designated areas should be encouraged.

- 2 If some form of head protection is considered necessary, only high standard, adequate helmets should be encouraged.
- 3 The inadequacy of knee and elbow pads to protect against fractures of the limbs must be stressed to the public.
4. Adult supervision should be obligatory for all skateboarders under the age of ten years.
5. Recognition that the sport requires genuine skills should be encouraged with minimal restrictions but adequate and freely available instruction, guidance and control of skateboard areas.

REFERENCES

Daily Telegraph, 1st September, 1977.

Glascoe, J., 1977. Letter to B.M.J. "The perilous skateboard". II: 1222-1223.

Illingworth, C. M., Jay, A., Noble, D., Collick, M., 1978. "Skateboard injuries in children". *Cl.Paed.* 17(10): 781-782, 787-789.

Jacobs, R. A., Keller, E. L., 1977. "Skateboard accidents". *Paed.* (59): 939-942.

Lister, J., 1978. "By the London Post — Skateboard Craze". *N.Eng.J.Med.* 298(13): 727-728.

Rogers, A., 1977. Letter to the B.M.J. "The perilous skateboard". II: 1026.

The Times, 1978. "Two Million Whiz Kids".

Wilson, D. H., Jeffries, C. D., Little, M. I., 1977. Letter to B.M.J. "The perilous skateboard". II: 1349.