Collapsible washing lines: a strangulation hazard

Collapsible rotary clothes lines may form a hazard to young children, as shown by the following case report.

Case report

An 18-month-old boy was admitted to hospital after being strangled accidentally in the dependent loops of a rotary washing line. The line had been left upright but its radial arms had been folded down. A few minutes after he had gone to play outside his mother had found him kneeling by the line with three strands of cord wound tightly around his neck (figure). He was unconscious and was not making any respiratory effort; peripheral pulses were not detectable. Initial resuscitation was performed by ambulance staff.

Washing line in collapsed position.

On arrival at hospital he was breathing spontaneously and had a normal cardiac rhythm. He had widely dilated pupils, was hypertonic, and had intermittent clonic convulsions. He was given oxygen, and metabolic acidosis was corrected. Fluids were restricted and dexamethasone was given for 24 hours. He recovered rapidly and was discharged two days after admission, having suffered no permanent neurological damage. While playing with the loops of the clothes line he had presumably become entangled and had been asphyxiated during his struggles to free himself.

Comment

Accidents are the commonest cause of death in children between the ages of 1 and 15 years in the United Kingdom.¹ For every fatal accident there are many more that result in appreciable morbidity. From birth until the age of 3 or 4 years most accidents are likely to occur in or around the home. Recognising and preventing potential hazards to children in the home environment is essential in reducing mortality and morbidity from accidents in the early years of life.

Strangulation in children is a fairly uncommon form of fatal accident but is one that is more easily preventable. It may take diverse forms, as shown in a recent report from Seattle,² which drew attention to hazards such as widely spaced slats or rails in cots, cords attached to pacifiers or articles of clothing and toys, window cords, and looped rope swings as potential and actual causes of strangulation. Although the Child Accident Prevention Committee in this country has not recorded similar accidents due to washing lines during the past three years, rotary clothes lines are used widely by families with young children and we wonder whether unreported incidents have occurred.

The most effective preventive measures are those that are simple and instituted easily, providing the hazard is recognised initially, but the potential danger of dependent loops of a rotary line may not occur readily to parents. The manufacturers of this particular washing line already indicate in their instruction leaflet that the line should be collapsed and removed to undercover storage when not in use. They now plan to include a further safety warning. Alternatively the line should be left in the extended position in which it is used.

¹ Jackson RH. Setting the scene. In: Jackson RH ed. *Children, the environment and accidents*. Tunbridge Wells: Pitman Medical Publishing Co Ltd, 1977:1-19.

² Feldman KW, Simms RJ. Strangulation in childhood: epidemiology and clinical course. *Pediatrics* 1980;**65**:1079-85.

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Immune complex detection in arterial and venous blood: a preliminary study

The detection of circulating immune complexes in serum has become widespread in clinical practice. Several infectious, immunologically mediated diseases have been associated with such complexes,¹ and disease activity has been correlated with their presence.² In some patients with active vasculitis and immunoglobulin deposition in vessels and glomeruli, however, no circulating immune complexes can be detected despite the use of several different techniques to assay them. We speculated, therefore, that in some of these patients pathogenic immune complexes circulate in the arterial blood and are deposited in the peripheral tissues. If that is so a negative venous sample cannot exclude an immune-complex-mediated disease. In this study we looked at paired arterial and venous samples from a heterogeneous group of patients to determine whether arterial sampling might be helpful in finding circulating immune complexes not present in the venous blood.

Patients, methods, and results

Twenty-five samples of arterial (radial artery) and venous (cubital vein) blood were taken simultaneously from 23 patients. Circulating immune complexes were assayed by three different techniques: Clq binding,³ monoclonal rheumatoid factor binding,³ and conglutinin binding.⁴ Samples were tested in duplicate on two separate occasions. Only differences in binding greater than two standard errors were regarded as significant, and to be reported one of the two samples had to be above the normal range. The results were reported in $\mu\text{g/ml}$ equivalent of aggregated IgG² to compare the assays. Antigenic complement components (C3-C4) and total complement haemolytic activity were measured according to the methods of Lachmann and Hobart.⁵

There was no significant difference between arterial and venous blood for antigenic C3 and C4 concentrations and for CH₅₀. Eight pairs of samples were negative for circulating immune complexes. Of the 17 that did contain immune complexes, seven had similar concentrations in both samples. Results in the remaining 10 are summarised in the table.

Comment

We observed significant differences in circulating immune complex concentrations in paired arterial and venous samples from several patients. In two, complexes were detected only in the arterial blood. Their presence would have been missed if we had relied only on venous samples. Circulating immune complex concentration in the venous circulation was higher in other patients, however, and in one complexes were found only in the venous blood.

In this preliminary study no particular trend was apparent, but the observed differences have to be explained by in-situ clearance,