

SU KOVALARINDA BOĞULMA: İKİ BEBEK OLGUNUN SUNUMU

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ÖZET

Ev kazaları, çocukluk çağındaki önde gelen önlenilebilir ölüm sebeplerinden birisidir. Ev kazası ile ilişkili ölümlerin bir kısmı banyo küveti veya havuzda boğulmaya bağlı olabilmektedir. Bu bildiri, su kovalarında boğulmaya bağlı iki ilginç ölüm vakasının sunulmasını amaçlamaktadır. Her iki vaka da yaşamlarının ilk yılında olup, her ikisi de ebeveyn gözetim eksikliği kaynaklı, su kovalarında kaza sonucu meydana gelen suda boğulma vakasıdır. Çocukluk çağındaki ölümcül ev kazalarını önlemek veya azaltmak için, kesintisiz gözetim ve çocuklar için potansiyel tehlikelerin tanımlanması önemlidir.

Anahtar Kelimeler: suda boğulma, 1 yaş altı, su kovaları, kesintisiz gözetim

DROWNING IN WATER BUCKET: A REPORT OF TWO INFANTS

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ABSTRACT

Home accidents are one of the leading causes of preventable deaths among children. A number of home accident related deaths might be caused by drowning in bathtubs or swimming pools. The aim of this report is to present two interesting cases of death due to drowning in water buckets. Both of cases were in the first year of their lives and both died of accidental drowning caused by lack of parental supervision. In order to prevent or decrease fatal home accidents among children, uninterrupted caregiving and defining the sources of potential dangers for children are important.

Key words: drowning, under 1 year of age, water bucket, uninterrupted caregiving

INTRODUCTION

Home accidents are one of the leading causes of preventable deaths among children. The incidence of home accidents among children under 6 years of age is reported as 51/1000 (1). A study previously conducted in Istanbul revealed that 26% of all deaths among children were due to home accidents (2). In literature, causes of home accident related deaths reported as poisoning, falls, blunt trauma, burns, scalding, electrocution, drowning and other asphyxiants, firearm injuries, etc (2,3). Interestingly, out of all deaths due to drowning between 1 and 4 years of age 63.1% were in home environment, according to data from Mexico (4).

It is important to be aware of the potential threats for the infants in the houses, in order to tackle such cases. The threat may be the daily eating or cleaning materials or some daily-used utilities concomitant with lack of supervision. The aim of this report is to present two death cases related to accidental submersion into water buckets, a utility widely used in the houses.

CASES

Case I

Case I was an 8.5 month-old male. He was found in a water bucket in the bathroom. According to the father's statement who was the first person to see the victim in the bucket; the mother has gone

to a neighbour in the apartment building and the other son of them aged 9 has also gone after his mother without her knowledge. After a while the son had come to their apartment back and the father asked the boy about his little brother. The boy told that he was with his mother and didn't know about him. Then the father searched the house and found the victim in the shower cabin of the bathroom. The boy was in the water bucket in the upside-down position, his legs were up in the air and there was some water in the bucket. The victim was unconscious and had no sign of life. The victim was immediately transferred to the hospital.

The medical records include the information that his clothes were wet at the arrival, had no sign of life and didn't give response to the resuscitation procedure.

Crime scene investigation report showed that there was a bucket in the shower cabin. The shower cabin was 30cm high. The bucket was 33cm high and the diameter was 35cm. The water level in the bucket was 8cm high and there was a plastic mug in it.

In the autopsy the deceased was 67cm tall and weighed 11kg. On the external examination there was no evidence of trauma except pinpricks due to medical intervention. In internal examination, right and left lungs weighed 74g and 66g, respectively. Lungs were extensively hyperemic and frothy exudate was observed in the cross-sections of the lungs and

also in the trachea. No water outflow was observed in the bowels. There was no finding related to child maltreatment/abuse. In detailed toxicological screening atropine was found in the blood and the urine. The histopathological examination showed subtle edema in the lungs. Consequently, the cause of death was reported as drowning.

Case II

Case II was an 11.5 month-old male. The mother told in her statement that she was cooking in the kitchen while her husband was watching television and 2 children of them were also at home. The elder son aged 3 came to the kitchen and asked her mother about his brother. Then she looked for the toddler and found him in the bathroom as his head was in a water bucket and his legs were touching the floor. The victim was unconscious and was immediately taken to the hospital. In the medical report, he was accepted dead on admission.

Crime scene investigation revealed that there were two buckets in the bathroom. Their diameters were both 30cm and heights 29cm. One of them had 7cm high water in it and the other hasn't got water but it had a mug filled with water in it.

During autopsy, external examination showed that the deceased was 79cm tall, weighed 8kg. There was a 1x0.2cm green ecchymose on the right-upper side

of the forehead, diaper rashes on the inguinal sites and two purple ecchymose (3x0.1cm and 4x0.1cm) parallel to each other on the inferior part of the right thigh. In internal examination, both lungs had edematous appearance with subpleural petechiae on the surface. In the cross-sections apparent frothy exudate was observed on the right lung. There was subtle froth on the surface of the trachea and main bronchial mucosa. Water outflow was observed on the intestinal sections. There was no distinct finding related to child maltreatment/abuse. In the toxicological screening phenobarbital lower than the therapeutic level was found in the blood and in the urine (concentration couldn't be detected). Histopathological investigation showed acute swelling and edema in the lung tissues. Death was attributed to the drowning.

DISCUSSION

Home accidents are among the preventable causes of childhood deaths. Home accidents comprise of falls, intoxication, firearm injuries, choking, drowning, burn, scalding, electrocution and etc. Drowning, among infants concomitant with lack of parental supervision, might be encountered in buckets, bathtubs or swimming pools. A study from Mexico reported that 63.1% of deaths due to drowning between 1 and 4 years of age were occurred in home environment (4).

In the literature, the most common cause of pediatric deaths due

to drowning in the home reported to occur in bathtubs (4-7). For example Brenner et al reported that 55% of infant drowning cases in the home were in bathtubs and 12% in buckets (5). However, in three different series from USA, drowning among children less than 4 years of age mostly occurred in swimming pools (8-10). These statistical outcomes are not similar with the studies conducted in Turkey, because the usage of the bathtubs is not as common as in other study populations. In a study examining 414 childhood deaths due to home accidents in Istanbul, Aşirdizer et al found all of (n:11, 2.6%) drowning cases at home were occurred in the buckets (2). In accordance with the literature, both of presented cases were in the first year of their lives and male (7,10,11).

In a study by Murdock and Joyce, 910 home accident patients under 15 years of age who admitted to a hospital, 74.5% were under 5 years of age. Cuts, falls and poisoning are the leading causes, respectively. In 95% of cases the child is under one or both parents' charge at the time of the accident (3). Some studies also indicated that in bathtub drowning, usually the child is left unattended or to in care of a sibling (7,12,13). In the scenario of drowning via domestic accident, the newly walking toddler is in one parent's or sibling's charge. In a very short interruption of care giving, the infant reaches to the water bucket or residential pool and submerges. In the presented cases, case I was left completely unattended inside

the house, while case II was at home with family members; however, he died due to lack of parental supervision.

The possibility of child abuse should be excluded in childhood deaths, particularly in those less than 1 year of age. On the external examination of presented case I no evidence of physical trauma was observed. Furthermore, no evidence of sexual abuse or findings indicating previous or recent skeletal trauma was noticed at all. In case II, a 1x0.2cm green ecchymose on the right-upper side of the forehead and two purple ecchymoses parallel to each other on the inferior part of the right thigh was observed. This case was a newly walking toddler and the ecchymose on the forehead is expected in this age group. On the other hand, other parallel purple ecchymoses on thigh was attributed to the pressure of the edge of the bucket. Therefore, child abuse was excluded in both cases.

For the prevention of fatal home accidents among children, uninterrupted care giving and defining the sources of potential dangers for children are important. Presented cases remind the importance of the potential danger in the bathrooms. Buckets may be as dangerous as a swimming pool for an infant under 1 year of age. Parents should take care of their children very carefully and especially buckets need to be emptied after use, also shower cabin and the door of the bathroom should be kept closed. On the other hand,

being an important public health issue, educational programs regarding "home accidents, possible dangers in home environment and morbidity-mortality caused by home accidents" might be implemented towards parents and/or caregivers, by public health professionals.

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