

Abuse and Neglect of Healthy Newborn by Parents: A Social Problem with a Long History

AHMADSHAH FARHAT¹, ALI GHASEMI², ASHRAF MOHAMMADZADEH³, MAJID SEZAVAR⁴

ABSTRACT

A Two-day-old girl who was found in garbage by police and transferred to hospital. She was irritable and dehydrated; also there were burn injuries around her knees and right cheek. Her weight was 3100 grams and physical examinations were normal. Opium was found in urine. Phenobarbital (4 mg/kg/day intravenous every 12 hours) was started for her irritability. After 20 days, infant was entrusted to a welfare organization with coordination of social support of hospital. The prevention of child abuse and neglect is an urgent public health concern. Home visit by welfare organization has been proposed as a promising approach to prevent health and developmental problems among children. We report this case of an abused and neglected newborn.

Keywords: Abuse, Newborn, Neglect, Social problem

CASE REPORT

An about Two-day-old girl (age estimation by Coroner) was found in garbage and delivered to paediatric emergency ward by police. Body surface of the infant was dirty; umbilical cord was very odorous and clamped by cotton fiber. There were evidences of burning around her knees and right cheek, small ecchymosed regions at the end of all fingers and right auricle, and an ulcer on her nose [Table/Fig-1]. The infant was irritable and dehydrated. There were no evidences of fractures. Other physical examinations were normal. Her weight, head circumference, and length were 3100 grams, 39 and 56 centimeters, respectively.

Infant was admitted to the emergency ward, she was reanimated by normal saline through peripheral IV line, and her umbilical cord was debrided. As well as viral assessment, full sepsis screening was done. Urine sample was collected to measure opium content. Tetanus, hepatitis B immunoglobulin, and vaccines were injected. She received vitamin K 1mg intramuscularly. Then she was transported to NICU.



[Table/Fig-1]: The signs of physical abuse
(a) Erythema and crusted areas after sunlight burn in knee (b) & c) Erythema and small gangrene area caused by sunlight burning and dehydration in foot and finger (d) General view of the severe erythema areas caused by sunlight (e) The normal chest x-ray film

Brain and abdominal ultrasonography did not show any abnormal findings. Opium was found in urine and then phenobarbital started for her irritability. Broad spectrum antibiotic coverage was considered by Cefotaxim (150 mg/kg) and Vancomycin (15 mg/kg). For burnt area, irrigation with normal saline and coverage by Vaseline and bandage was prescribed. Arterial blood gases showed metabolic acidosis at admission and corrected fluid therapy (pH=7.28, PCO₂=30, PO₂=60, HCO₃=14, base excess=-11). In CSF assessment, aseptic meningitis found (WBC=50/ml, lymphocyte=100%, sugar=118 mg/ml, protein=91mg/ml, and culture was negative). Other laboratory tests were normal [Table/Fig-2].

Infant's symptoms improved after 1-2 days. And feeding with formula started after 24 hours of admission and she was full feed very soon and IV fluid discontinued at fifth day of admission. Sepsis

Test	First results	Last results	
Blood	Sugar (mg/dl)	47	80
	Creatinin (mg/dL)	1	0.6
	Na (mEa/L)	136	136
	K (mEa/L)	4.7	4.6
	Ca (mg/dL)	8.8	8.6
	Total bilirubin/direct	10.1/0.4	
CRP (mg/lit)	26	8	
ESR	2		
PT/INR/PTT	22/2.51/35	16/1.5/31	
Coombs Direct/Indirect	Negative/negative		
CBC	WBC (cells/ μ L)	22600	14400
	RBC (cells/ μ L)	4630000	4290000
	Hb (gr/dl)	16	13.9
	Hct	46.9	41.2
	Plt (ml)	120000	303000
	MCV(fi)	101	96
	MCH	34.6	32
	MCHC	34.1	32.7
Blood culture	Negative		
Urine culture	Negative		
HIV Ab/HCV Ab/HBS Ag	Negative/negative/negative		
Urine opium	Positive		
Brain ultrasound: normal	Abdominal ultrasound: normal		

[Table/Fig-2]: The laboratory finding

screen was negative and antibiotics discontinued. Withdrawal treatment by Phenobarbital continued for one week and then tapered gradually. Her ulcers on cheek, nose and upper part of right knee was completely improved after three weeks. After 20 days, infant was delivered to a welfare organization with coordination with social support of the hospital.

DISCUSSION

Infants who are admitted in NICU have serious problems that needs different medical treatment intervention. In this circumstance history and physical examination are very important for medical diagnosis. The physician must be aware of maltreated or neglected infant especially in infants with skin bruising, ecchymosis and skeletal fractures. Thus assessment of the child's medical and family circumstances is very important. The abuse and neglect (maltreatment) of children are pervasive problems worldwide, with a short- and long-term physical and mental health and social consequences. Abuse is defined as acts of commission and neglect as acts of omission. Abuse is categorized as physical (beating, shaking, burning, and biting), sexual (any touch of private area by parents or caregivers in a context other than necessary care is inappropriate) or psychological [1,2].

Neglect means omission in care, resulting in potential harm. Omission may include inadequate health care, education, supervision, protection from hazards in the environment, physical needs, and/or emotional support [3]. World Health Organization (WHO) has estimated that 40 million children under the age of 15 years suffer from abuse or neglect worldwide. Bruises are the most common manifestation of physical abuse. Especially, in perambulatory infant or in less exposed area or multiple bruises in different ages. Other manifestations include bites, burning, fractures, head trauma, retinal haemorrhages, abdominal trauma [4].

According to the National Child Abuse and Neglect Data System (NCANDS), the rate of child death as a result of abuse and neglect increased slightly from 2011 to 2012. In 2012, estimated 1640 children died from abuse and neglect in US. In other terms, 2.20 per 100000 children in the general population and an average of four children are dying every day from abuse or neglect [1,5].

Recent researches showed that children aged <4 years are the most frequent victims of child fatalities. The report from the NCANDS demonstrated that children aged <1 years accounted for 44.4% and younger than 4 years accounted for over three-fourths (77.0%) of fatalities [1]. Small size, their dependency, and inability to defend them, are most important causes in these children [6,7]. The characteristics of low-income female who abused or neglected their infants, are addiction or have addicted husbands, have low educational level, medicaid receipt, history of depression, whether separated from their own mothers at age 14 years, which were the best predictors of a maltreatment report in the first year of life [8-10]. When a women use drugs, her parenting ability may be seriously impaired and also the in-utero exposure of the infant to drug may have physiological or developmental problems [11]. Decrease

over time in these factors to be important prevention of child maltreatment by 12 months of age. They also found that stress and social support during pregnancy had no interaction effects on reports of child maltreatment [12]. Thus the safety, health, development, and life expectancy of these infant are at risk [13]. Further examination revealed that the interaction between stressful life events and social well-being was also a significant predictor.

Despite limited evidence it has been suggested that child advocates and policy makers have actively promoted home-visitation services which may support their effectiveness in reducing child maltreatment [12,13]. The concern of urgent public health is the prevention of child abuse and neglect. In recent years, home visitation has been generally suggested as a promising procedure to prevent health and developmental problems in children, many of home visitation plans have been started in past years. This emphasis may be due to magnitude of this social problem and the limited success of prevention attempts in the past.

CONCLUSION

Postpartum social support is critical for addicted mothers as a part of the high-risk parents group, since they are prone to child abandonment and abuse.

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PARTICULARS OF CONTRIBUTORS:

1. Neonatologist, Assistant Professor, Department of Pediatrics, Neonatal Research Center, Imam Reza Hospital, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.
2. Neonatology Subspecialty Resident, Department of Pediatrics, Mashhad University of Medical Sciences, Mashhad, Iran.
3. Neonatologist, Professor, Department of Pediatrics, Neonatal Research Center, Imam Reza Hospital, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.
4. Fellowship of Pediatric Intensive Care, Department of Pediatrics, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Majid Sezavar,
Fellowship of Pediatric Intensive Care, Department of Pediatrics, Faculty of Medicine,
Mashhad University of Medical Sciences, Mashhad, Iran.
E-mail : Sezavar.majid@yahoo.com

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