

A CASE OF NEONATICIDE - MANUAL STRANGULATION OF A NEWBORN

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ABSTRACT

Introduction: The homicide of a newborn committed by a biological parent within the first 24 hours of life is referred as neonaticide. In the majority of cases of neonaticide the pregnancy was kept a secret and birth was given with no medical assistance. The prevalent causes of deaths of newborns murdered by biological mother are different types of mechanical asphyxiation, brain trauma, and hypothermia. **Materials and methods:** Forensic medical examination – forensic medical autopsy, additional sections and tests. **Case presentation:** We present a case of murder of a newborn female, most probably committed by the mother. The cadaver was found at a dumpsite in Sofia in an initial stage of decomposition. The newborn was born alive, mature, full-term, and without any malformations. The forensic medical autopsy revealed traumatic injuries in the neck area, which are connected with the cause of death – mechanical asphyxiation due to manual strangulation. There also were severe traumatic injuries of the hymen, vagina, anal ring and rectum with clear signs of vitality. The examination revealed also post mortal traumatic injuries – excoriations of the skin and skull fractures, which were caused during the transportation of the cadaver together with the garbage. **Discussion and conclusion:** There were no data about the mother, but most probably she committed the murder. The lacerations of the vagina, anus and rectum were caused by human fingers. The newborn was strangled manually. Decreasing of the frequency of neonaticide might be possible by lowering the risk factors. The main risk factors are hidden pregnancy, giving birth without medical help, and predisposition to psychotic state of the mother.

Key words: *neonaticide, newborn, manual strangulation, forensic medical examination.*

INTRODUCTION

The term neonaticide refers to the homicide of a newborn within the first 24 hours of life committed by a biological parent (Craig, 2004; Shelton et al., 2010). Neonaticide is a significant issue in forensic sciences (Mendlowicz et al., 2002). Most of the offenders are students, individuals of lower social class, or have criminal history (Shelton et al., 2010). In the majority of cases of neonaticide the pregnancy was kept a secret and birth was given with no medical assistance (Marcikić et al., 2006). It is common the judges and juries to give less severe sentences in such cases because of the presumption that the mother might be in a psychotic state right after giving birth (Shelton et al., 2010). The frequency of amnesia reported in cases of murders of newborns right after delivery varies widely (Mendlowicz et al., 2002). The prevalent causes of deaths of newborns murdered by biological mother are different types of mechanical asphyxiation, brain trauma, and hypothermia (Herman-Giddens et al., 2003; Marcikić et al., 2006). Proof of life birth is crucial for the forensic medical examination and conclusion (Guddat et al., 2013). Different morphological features and test performed during the autopsy give ground for determination if a newborn was alive or stillborn (Guddat et al., 2013). In some cases use of post-mortem computed tomography might be advantageous in cases of suspected murder of a newborn (Guddat et al., 2013). The results from DNA-analysis could be useful altogether with the results from the autopsy in cases of neonaticide not only for the examination of material evidence, but also for establishing the biological parents of the victim (Wurmb-Schwark et al., 2009).

MATERIALS AND METHODS

The cause and manner of death were established by autopsy - full forensic medical examination of the cadaver including external and internal examination. During the autopsy material for DNA-analysis was taken in case investigators establish the identity of the mother, who is most probably the perpetrator of the crime.

CASE PRESENTATION

A cadaver of a newborn female was found at a dumpsite in Sofia. The cadaver was naked, smeared with vernix, mud, and dirt. According to the post mortal changes it was in an initial stage of decomposition. The timing of death was assessed to be approximately 48 hours. There was no placenta at the crime scene. The cadaver was taken to the department of forensic medicine and deontology in Sofia to be examined. The cadaver's weight was 3500mg, and it was 50cm long.



Figure 1



Figure 2



Figure 3

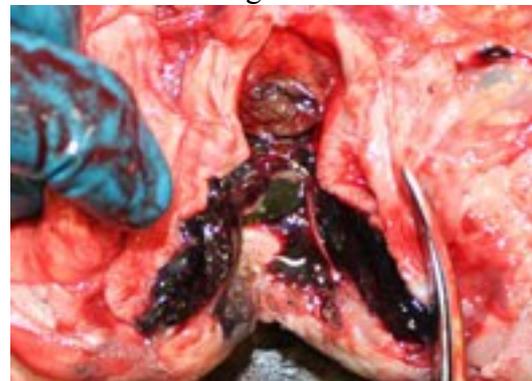


Figure 4

There were external signs that the baby was full-term and mature, no malformations were registered. All over the skin there were excoriations with no bruising surrounding them and no other vital signs. The cranial area of the head was deformed. There were spot-like hemorrhages under the conjunctives of both eyes. On the right side of the skin of the neck there were bluish-purple bruises. The free end of umbilical cord was torn and bruised. The back area of the hymen was torn, and the soft tissues were massively bruised. From the tear of the hymen started a tear of the posterior vaginal wall 1,5cm long with a massive bruising (Fig. 1). The anal ring was also torn with bruising of the soft tissues (Fig. 2). In the depth of the laceration there were tissue bridges. After the external examination an internal examination of the cadaver, including additional sections, was performed. The internal aspect of the soft tissues of the head was bruised in the frontal and parietal areas. The skull was broken, but there was no bruising corresponding to the fractures. There were no intracranial hemorrhages. The section of the neck revealed presence of deep bruising of the soft tissues corresponding to those found during the external examination (Fig. 3). The lungs were

expanded, bright pink, and with areas of atelectases. The heart was with normal morphology, and massive spot-like hemorrhages under the epicardium. The additional sections in the pelvic floor area showed laceration of the rectum with pulling of its mucous from outside to inside, and massive bruising of the soft tissues (fig. 4). Flotation tests with the lungs and organs of gastrointestinal tract were positive, but the result is not certain because of the initial decomposition of the cadaver.

DISCUSSION AND CONCLUSION

The child was born alive, full-term, and mature. There were no physical abnormalities or malformations of the internal organs. The bruising of the soft tissues covering the skull most probably occurred during the process of delivery of the baby. The mother gave birth to the baby not in a hospital. Most probably she was alone and torn the umbilical cord instead of cutting and tying it. The cause of death was mechanical asphyxiation due to manual strangulation of the newborn which was demonstrated morphologically by the characteristic bruising of the neck. The injuries of the hymen, vagina, anus, and rectum were caused by blunt object, by pressure and overstretching of tissues from outside to inside. The features of the injuries give ground for the conclusion that they were caused by human fingers. The massive bruising in the areas of the injuries shows that they were caused while the newborn was still alive, before the pressure of the neck and asphyxiation. After the murder, the cadaver was thrown away in the garbage. The skull fractures and the excoriations of the skin were caused post mortally, during the staying and transportation of the cadaver all together with the garbage. Investigators didn't find the mother of the child or a witness of the crime, so the case remains unclear. There was no information of woman who searched for medical help because of some kind of complications after giving birth.

In the presented case there were no data about the mother and the pregnancy. No conclusions about the physical and psychical state of the mother in the hours after giving birth can be made. Preventing neonaticide includes diagnosis of hidden or neglected pregnancy, identification of risk factors and signs of potential psychotic states in pregnant women and collaboration between medical specialists and non-medical professionals coming into contact with high-risk women (De Bartoli et al., 2013). In the presented case the murder of the newborn was active, but cases of passive murders due to abandonment of newborns are also reported and referred as neonaticide when abandonment is intentional (Lee et al., 2006). For the forensic medical examination and conclusions in cases of neonaticide it is crucial to determine the viability and maturity of the newborn, the cause and manner of death, and to identify the mother (Krajčovič et al., 2014). The examination of the cadaver and determination the cause and manne of death might be difficult in cases of decomposed cadavers, according to the stage of decomposition. The longer time passes after death, the harder is establishing the cause and manner of death (Krajčovič et al., 2014).

REFERENCES

1. Craig, M., 2004. Perinatal risk factors for neonaticide and infant homicide: can we identify those at risk?, *J R Soc Med*, 97, 57–61.
2. De Bortoli, L., J. Coles, M. Dolan, 2013. A review of maternal neonaticide: a need for further research supporting evidence- based prevention in Australia, *Child Abuse Review*. Published online in Wiley Online Library.
3. Guddat, S., R. Gapert, M. Tsokos, L. Oesterhelweg, 2013. Proof of live birth using postmortem multislice computed tomography (pmMSCT) in cases of suspected neonaticide: advantages of diagnostic imaging compared to conventional autopsy, *Forensic Sci Med Pathol*, 9, 3–12.
4. Herman-Giddens, M., J. Smith, M. Mittal, M. Carlson, J. Butts, 2003. Newborns killed or left to die by a parent. A population-based study. *JAMA*, 289, 1425-1429.

5. Krajčovič, J., M. Janík, F. Novomeský, L. Straka, P. Hejna, 2014. Feasibility, diagnostic validity and limits of postmortem evaluation of a newborn infant following an extremely prolonged freezing interval: A thanatological case study, *Legal Medicine* (in press).
6. Lee, A., C. Li, N. Kwong, K. So, 2006. Neonaticide, newborn abandonment, and denial of pregnancy—newborn victimisation associated with unwanted motherhood, *Hong Kong Med J*, 12, 61-64.
7. Marcikić, M., B. Dumen, E. Matuzalem, K. Marjanovi, I. Požgain, M. Ugljarevi, 2006. Infanticide in Eastern Croatia, *Coll. Antropol.*,30 (2), 437–442.
8. Mendlowicz, M., M. Rapaport, L. Fontenelle, G. Jean-Louis, T. De Moraes, 2002. Amnesia and neonaticide, *Am J Psychiatry* 159:3, 498.
9. Shelton, J., Y. Muirhead, K. Canning, 2010. Ambivalence Toward Mothers Who Kill: An Examination of 45 U.S. Cases of Maternal Neonaticide, *Behav. Sci. Law*, 28, 812–831.
10. Wurmb-Schwark, N., T. Schwark, 2009. Genetic determination of sibship and twin zygoty in a case of an alleged double infant homicide, *Legal Medicine*, 11, 510–511.

FIGURE LEGEND

1. Gross examination: laceration and bruising of the vagina.
2. Gross examination: laceration and bruising of the anus.
3. Gross examination: bruising of the deep soft tissues of the neck.
4. Gross examination: laceration of the rectum, bruising of the adjacent tissues.