

# A baby found in a dumpster: Case report

## Çöplükte bulunan bebek: Olgu sunumu

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### SUMMARY

The forensic medical approach to infant mortality has a special place. Determining whether a baby is born alive or dead is important for forensic medicine. The aim of this study is to determine the causes of death in infant deaths and to emphasize the factors that should be considered in approaching especially cases with forensic dimension.

An investigation into the incident was initiated when a person poured garbage into collecting waste materials and found a baby body in the bag on the resident at an edge in the afternoon. Forensic medical examination; it was seen that the whole body, including the face, was covered with dried yellow-brown amnion residues and a dried blood smear behind the right ear. No traumatic findings were found in the external and internal organs. The placenta was connected with an umbilical cord in the corpus, and no signs of clamping were observed on the umbilical cord. As a result of forensic medical procedures, stillbirth was detected.

As a result, since infant mortality rates are indicative of a level of health development, it is an important goal to reduce these rates for our country. Developing strategies to identify and prevent infant mortality; It is obligatory to determine the missing, strengthen the infrastructure, and make the autopsy and other examinations carefully.

**Keywords:** Infant death, infanticide, garbage, autopsy, forensic medicine

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### ÖZET

Bebek ölümlerine adli tıbbi yaklaşım özel bir yer tutmaktadır. Bebeğin canlı ya da ölü doğup doğmadığının belirlenmesi adli tıp açısından önemlidir. Bu çalışmanın amacı, bebek ölümlerinde ölüm nedenlerini belirlemek ve özellikle adli boyutu da olan olgulara yaklaşımda dikkat edilmesi gereken unsurları vurgulamaktır.

Bir kenar mahallede bulunan bir yerleşkede öğle saatlerinde bir şahsın atık malzemeler toplamak için çöplük karıştırdığı bir sırada bebeğin cesedinin poşet içerisinde olduğunu fark etmesi üzerine olayla ilgili soruşturma açılmıştır. Yapılan adli tıbbi incelemede; yüz dahil tüm vücudun kurumuş sarı-kahverengi amniyon artıkları ile kaplı olduğu, sağ kulak arkasında kurumuş kan bulaşığı olduğu görüldü. Haricen ve iç organlarda travmatik bulguya rastlanmadı. Plasenta, cesede göbek kordonuyla bağlı olup göbek kordonu üzerinde klemplemeye ait herhangi bir bulgu izlenmedi. Adli tıbbi işlemler sonucunda ölü doğum bulguları tespit edildi.

Sonuç olarak, bebek ölüm oranları bir sağlık gelişme düzeyi göstergesi olduğundan ülkemiz açısından bu oranların azaltılması önemli bir hedeftir. Bebek ölüm nedenlerinin belirlenmesi ve önlenmesine yönelik oluşturulacak stratejiler geliştirilmesi; eksiklerin saptanmasını, altyapının güçlendirilmesini, otopsi ve diğer incelemelerin özenli bir şekilde yapılmasını zorunlu hale getirmektedir.

**Anahtar sözcükler:** Bebek ölümü, infantisid, çöplük, otopsi, adli tıp

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## INTRODUCTION

Perinatal deaths include the deaths above the 28<sup>th</sup> gestational week and within the first week after birth. Neonatal infant deaths occur within 28 days after delivery. Perinatal deaths include stillbirths, abandoned babies, and cases with suspected infanticide<sup>1-3</sup>.

It is important to determine whether the baby was born alive or still, and to find out if there is a forced cause of death for clarifying the forensic aspect of the incident. In addition, determining the cause of death in stillbirths and neonatal deaths accelerates psychological recovery in families and is essential in recognizing recurrent risk and planning future pregnancies<sup>3,4</sup>.

The aim of this study is to determine the causes of death in perinatal and neonatal deaths by examining the case of a dead infant in a dump and to emphasize the factors that should be considered in the approach of this case which has especially a forensic dimension.

## CASE REPORT

A person collecting paper and cardboard from the garbage dumpster saw the baby body in the bag in the garbage container and then, reported to the prosecutor. The newborn baby by the medical teams to the crime scene was found as dead. The body of the baby was removed after the examination to the hospital morgue. In postmortem examination; sex was observed as female externally and measurements compatible with 34 weeks, 1,8 cm long black-haired baby body weighs 2.300 grams. The baby had a head circumference of 31,5 cm, the vertex of head-heel length 42 cm, the vertex of head-hip length 27 cm, chest circumference 26 cm, abdominal 24 cm circumference, heel-hip distance 18 cm, the foot soles length was measured as 6 cm.

There was no dead stiffness, dead spots were common in the face area, anterior parts of the neck, on thoracic and abdominal anterior-lateral faces, near the entire upper extremity, on the lower extremity lateral faces, and on anterior leg faces as dark purple-red in color. Also, the whole body, including the face was covered with yellow-brown amniotic residues. It was seen two ECG monitorization pads on the anterior upper chest, and one pad on the left lower quadrant of the abdomen (medical intervention was reported).

In the head region, anterior and posterior fontanelle was open by palpation, the frontoparietal suture line was slightly inwardly

collapsed. There was a purple colored appearance on the forehead and face areas; auricle was developed normally. The tongue was between the lower and upper jaw in the oral cavity. There was a small amount of dark brown liquid in the oral cavity. There was oval depression 1x1 cm in size and 0,5 cm in depth on the right cheek. Dried blood contamination was observed behind the ear, right parietal-temporal area.

The cyanotic appearances were found in hand and toenail beds. The number of fingers and toes and nail structures was usual. There was no abnormality, and no traumatic findings were found in the upper and lower extremities.

The placenta was attached to the corpse by the umbilical cord, and there was no evidence of clamping on the umbilical cord. The umbilical cord length was 50 cm long from the umbilicus to the placenta attachment site, the placenta was 18x16 cm in size, and the triple vessel structure within the umbilical cord was natural in the section made by separating the umbilical cord from the placenta.

Hip folds were symmetrical. In genital examination; the clitoral region was bigger than normal, and the anal region was natural. The external examination of the body revealed no sign of a congenital anomaly.

Forensic autopsy proceeded: Congestion was observed under the scalp, no bleeding was seen. The front fontanel was 3x2 cm, and the back fontanel was 0,5x0,5 cm in width. The skull was opened from the sutures. No traumatic findings were observed in the skull bones. Brain and cerebellum surfaces were found to have a bright congressional appearance. The brain, cerebellum, and brain stem were removed and weighed 285 grams. Brain and cerebellum consistency was found to be extremely softened.

There was no traumatic finding on the rib cage. No free fluid or blood was observed in both pleural cavities. Thymus weighed 10 grams was found to be natural in the anterior mediastinum. Both lungs were pulled sideways in the thoracic cavities. The edges of the lungs were sharp, dark red in color and hardness close to liver consistency. Neck and chest organs were removed as overalls. The standard features and the amount of fluid was seen in the pericardial space. The heart was weighed 15 grams. No pathological features were observed on the cardiac surfaces and vascular structures. The aortic valve was measured 2 cm, mitral valve 3 cm, tricuspid valve 3 cm, left ventricular wall thickness measured 0,5

cm. There were no significant pathological features in the valve and cavities. The right lung was weighed 25 g and the left lung 20 g. It was seen that both lungs as a whole, as in pieces and also as a crushed didn't reach on the water surface in a water-filled container. Both lung surfaces and sections were found in dark red color and hard consistency.

The neck muscles were removed one by one. There was no traumatic finding on soft tissues or between the muscles. The esophagus was found empty when the opening of the neck organs. It was seen that trachea mucosa was found to be natural. Hyoid bone and thyroid cartilage were found intact.

No free fluid or blood was seen in the abdominal cavity. Abdominal organs were observed in standard anatomical position. The liver was weighed 85 g and the spleen 5 g. On external and cross-sectional features of liver and spleen, it wasn't observed another pathological finding. Stomach was opened, and the lumen of the stomach was found empty. The large intestines were opened, and dark green colored meconium material was probably seen. Small intestines were observed in light pink color and in natural structure. When the inner lumen is opened, there was light green colored material, probably meconium. Both kidneys were removed, and each weighed 10 g. Both kidney surfaces were a lobulated view, and no features detected at the external examination and cross-sectional features. Uterus, ovaries, and fallopian tubes were observed in the natural structure in the pelvic cavity. Bladder found as empty. The ossification point of the calcaneus was examined, and there was an oval brown area with a diameter of 1 cm on the white ground. In addition, a dark red-brown area with a diameter of 0,4-0,5 cm was observed on the white background by looking at the Becklard ossification point at the lower end of the right femur.

Blood samples were taken from internal organs for histopathological and toxicological analysis, and bone samples were taken for DNA detection and sent for examination. As a result of histopathological examinations; the congestion in brain, brain stem, pons and cerebellum, alveoli in the lung tissue containing congestion, bronchi-bronchial lumens collapsed appearance in most areas, a small number of bronchial opening were observed. Pleural punctate bleeding was detected. The histomorphological findings suggest unrespiratory lung. Congestion in the liver, extramedullary hematopoiesis foci, congestion in

the heart and thymus, congestion in the umbilical cord, placenta, and umbilicus containing a vein and two arteries in the amniotic membrane as normally were detected in the amniotic membrane. Congestion revealed on placenta compatible with 3<sup>rd</sup> trimester. Alcohol (ethanol, methanol) or toxicological agents (including drug-stimulant substances) was detected. On DNA examination of the clavicle and scapula; DNA profile was found in female genotype.

## DISCUSSION

When a person in a slum discovered that there was a baby corpse in a bag while he was mixing the trash to collect waste materials, the prosecution launched an investigation into the incident. Police and medical teams reported That a bloody cloth wrapped in a plastic bag at the scene might be newborn baby thrown in the trash. The result of the examination and autopsy of the baby's body was found to be the result of the stillbirth. In addition, tissue and body fluid samples were taken and sent to the laboratory for histopathological and toxicological examination and identification. In terms of forensic medicine in infant deaths; whether it is born alive or not, whether it is capable of sustaining life if it was born alive, whether it was born at term, is important for determining the cause of death and identification if it is derelict. The large-scale judicial investigation did not yield any results, and the investigation was closed.

It is called stillbirth when the fetus dies after the intrauterine 28th gestational week in intrauterine or during labor. If the fetus showed any signs of viability following birth (movement, crying, umbilical cord pulsation), she was born alive. It is sometimes not possible to determine whether a live or stillbirth is certain by external examination, even after autopsy<sup>5-7</sup>. The most common causes of stillbirth are prematurity, fetal hypoxia, and infection (most viral), birth trauma, and congenital anomalies. If maceration is detected in the baby, it is proof that she is stillborn<sup>3</sup>.

Infant deaths have a special place in the Turkish legal system. In Article 88 of the Code of Criminal Procedure No. 5271; "Forensic examination or autopsy on the body of the newborn determines whether the signs of life are born during and after birth and whether or not they are biologically mature enough to survive outside the uterus, or whether they have the ability to survive." In the legal process, the distinction between stillbirth and live birth of the baby may be subject to both law and punishment cases<sup>8, 9</sup>. Again, according to Article 82 of the Penal Code

No. 5237, “Intentional killing, to a child or a person who cannot defend himself with regard to body or soul, is considered a qualified form of killing and the killer is punished with aggravated life imprisonment.” If the child dies as a result of negligence or mistakes of relatives of baby, during birth or by people in medical care, there is a death penalty under negligence, according to Article 85 of the Turkish Penal Code No. 5237<sup>8</sup>.

In civil law, it is important to determine whether the unborn child is live or not, in order to assess the civil rights of the child as an individual. If the child was born alive, the mother could benefit from her civil rights from the moment she falls into the womb. Article 643 of the Civil Code no. 4721 states that “If there is a fetus that can become an heir on the date the inheritance is opened, sharing shall be postponed until its birth”. In this way, the rights of the fetus are protected until delivery, by law provided that the fetus is born alive<sup>3,8</sup>.

Perinatal and neonatal mortality rates are an important indicator for determining the health levels of countries in international comparisons. These rates are the measure of a country's education and public health systems and socioeconomic developments<sup>4</sup>.

Neonatal deaths cause great distress for families and create concern for subsequent pregnancies. Prenatal or postnatal problems are usually limited during the follow-up and prenatal care of the mother during pregnancy, and the inadequate care of the baby in the hospital and at home immediately after birth is an important reason for the high number of deaths during this period<sup>10-12</sup>. In addition, prematurity, intrauterine growth retardation, and multiple pregnancies are the most important risk factors in antenatal and perinatal deaths. The most important cause of intrauterine growth retardation is placental insufficiency<sup>4</sup>. In infant deaths, a detailed evaluation including a scene investigation, medical and family history of the infant, autopsy and postmortem investigations are required.

**In conclusion;** infant mortality rates are indicators of development level and reducing these rates is a goal for our country. Identifying the causes of infant mortality will both play a role in setting targets for prevention and reduction of deaths during this period and support the proper functioning of the legal process. For this reason, deficiencies in infant deaths should be identified; the infrastructure should be well established,

autopsy and other examinations should be performed with a careful approach.

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