POST-MORTEM REPORT OF A NEONATAL DEATH

by

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Post-mortem examination is necessary to confirm the diagnosis and to find out the cause of death in some cases. In Nepal it is not a usual practice. There are several difficulties in doing post-mortem examination, the most important of which is to obtain permission from the parents or the guardians to perform post-mortem. Here is a case report of a neonatal death with post-mortem findings, which helped us in knowing the cause of abnormal respiration in a newborn baby and also the cause of death in this case.

CASE REPORT

A female patient aged 35 years was admitted to the maternity ward of the Bir Hospital, Kathmandu on the 12th, Kartik, 2024 (29th, October, 1967) with the history of labour pain of 48 hours duration at full term pregnancy. This was her fourth pregnancy. The first pregnancy had terminated as full term normal delivery and the infant had died after two weeks, the cause of death could not be known. She had living children aged 13 and 8 respectively. There was no history of any still birth or of abortion. During this pregnancy she did not have any antenatal care.

On admission, her general condition was good and there was no sign of toxemia of pregnancy. The height of the uterine fundus was up to costal margins. It was cephalic presentation in the left occiputo-lateral position and head was not engaged. Fetal heart sounds were normal. The uterine contractions were mild and irregular. On pelvic examination, the cervix was partially taken up and so was not dilated (multipos), and the presenting part was high, and the pelvis seemed to be adequate.

At 9.15 A. M. on the 14th. Kartik i. e. 48 hours after admission, the uterine contractions were still mild and irregular and of shorter duration. Fetal heart sounds were satisfactory. The membranes were ruptured about 15 minutes earlier. The pelvic examination showed drainage of clear liquor. The cervix was partially taken up and was about 2 fingers dilated. It was face presentation and the presenting part was just above ischial spine. The labour pains became stronger and more regular and by 10.30 P. M. The same day she was in the second stage of labour. The presenting part was at the level of ischial spine, it was brow in the right mento-lateral position.

Under aseptic condition and local anaesthesia infiltration manual flexion of the head was tried, but rotation was not possible. The obstetric forceps were applied in antero-position and when moderate traction was used head advanced to the perinium where rotation to mento-anterior position was effected. The right medio-lateral episiotomy was given and the head was delivered as face. It was followed by spontaneous and easy delivery of the shoulders and the rest of the body at 11.15 P. M.

The baby cried soon after delivery but the respiration was shallow and noisy. Mucus was cleared from the mouth and oropharynx with the help of a catheter suction. The respiration improved but was still noisy. The baby was transferred to the baby-incubator at 12 mid night. The weight of the baby was 7 pounds 11 ounces.

Next morning respiration had not improved the colour of the baby improved with direct oxygen administration. Catheter was passed through the oesophagus into the stomach but very little mucus could be sucked. Later, in the evening the baby had two cyanotic attacks and each time it improved without any specific treatment. The paediatrician was consulted but no abnormality was found on clinical examination except poor air entry on the right side of the chest. Injection of Crystalline Penicillin 200,000 units was given intramuscularly followed by 100,000 units every 12 hours. The baby was kept under close observation. The respiration remained shallow but easy.

Suddenly, about 5.30 P. M. on the same day the baby started gasping. Oxygen inhalation and coramine injection were given without any effect, and the baby died after 15 minutes. It was decided that the post-mortem examination may help in finding out the cause of the abnormal respiration and also the cause of death. When the situation was explained to the parents they easily gave us permission for the post-mortem examination.

POST-MORTEM REPORT

The post-mortem was carried out on the 16th, Kartik 2024 (2nd. November 1967). The findings are as follows.

Respiratory System: In the nasal passage, oropharynx and larynx no abnormality was found. At carina a small flack of mucus was present. The lungs were mostly solid looking, more so on the right side. A few bulous areas were seen at the periphery. Different areas were sectioned, macroscopic examination suggested atelectasis of the lungs.

Heart and big blood vessels: No abnormality was found.

Cranium: No hemorrhage or other abnormality was present.

Conclusion: The cause of death was due to incomplete expansion of the lungs resulting into respiratory failure. Although histological findings are not available, this is a case of pulmonary atelectasis.

COMMENTS

Atelectasis neonatorum—the failure of the lungs to expand completely, after respiration is established, is often due to some deficiency of the respiratory process, like insufficient vigor of respiratory movement in a week premature infant. It is unlikely in this case. Another common cause is obstruction to respiratory passage by mucus, desquamated epithelium or vernix caseosa. These are aspirated during first inspiratory effort which may even occur during intrauterine life in asphyxia. Intrauterine asphyxia is seen more often in post mature babies, malpresentation or some other obstetric complications. Malpresentation and operative delivery seem to have contributed in the development of the atelectasis in this case although

hyaline membrane disease of the newborn can not be ruled out. Attention should be drawn to this condition when there is some respiratory difficulty in the newborn.

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