

MORPHOLOGICAL CHANGES OF THE KIDNEY OF INFANTS WHO DIE FROM  
ASPIRATION SYNDROME

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**Conclusion.** Aspiration syndrome in the early postpartum and late neonatal periods remains one of the relevant research topics in neonatology, with still less emphasis on postpartum aspiration in newborns and infants, despite its clinical significance.

**The purpose of the work .** Observation of specific morphological changes in the development of the kidney of infants who died from Aspiration Syndrome in the early and late neonatal period after childbirth in postnatal ontogenesis.

**Object and subject of research.** At the Republican Center for pathological anatomy, a total of 48 patients in the postnatal neonatal period 2020-2023 received kidney tissue material from infants and infants who died early (0-7 days) of the neonatal period.

**Results obtained.** Infants with Aspiration Syndrome during the period of up to 7 days due to renal hypoxia, epithelial cell necrosis is usually arang-palpable and is detected with difficulty of the basal membranes. The distal part of the ducts and the presence of protein cylinders in the collecting tubes are evidence of Aspiration Syndrome. We have observed that cells that have undergone necrosis and migrate pass into the lower sections of the ducts and form cylinders. It will be possible to predict the accumulation of lymphocytes, macrophages around the affected membrane.

**Conclusion:** microscopic tests of kidney tissue show that we study morphological changes in kidney tissue isolated in autopsies of infants diagnosed with Aspiration Syndrome in the neonatal period. Necrotic change in the kidney, which begins at a time when blood circulation is impaired, that is, when oxygen does not reach well, is referred to as ischemic duct necrosis. In this case, we will be able to see that the proximal part of the ducts and the descending part of the genle bladder are damaged. The onset of acute kidney failure is indicated by necrosis of the ducts.

**Keywords:** infant, neonatal period, acute kidney failure, hypoxia, ischemic necrosis, autopsy

**Topical relevance:** postpartum Aspiration Syndrome still remains one of the relevant research topics in neonatology, despite its clinical significance it is often observed that there is still less emphasis on postpartum aspiration in newborns and infants. The Neoanatal period conditionally

includes two periods. These are the early neonatal period in which the baby is between 0-7 days from birth. The second late neonatal period includes a period of 8-28 days. In the Neonatal period, the development of most internal organs is manifested in the form of a systemic response reaction in response to any influencing factors. In Aspiration Syndrome, which occurs in infants during the early neonatal period, hypoxia of mainly parenchymatous organs from the internal organs is observed. In our study below, these pathological changes develop in the postnatal ontogenesis of kidney tissue with the following morphological changes. That is, the newborn kidney is relatively large and round in shape. It consists of pieces, and the surface becomes rough so that the bark floor is not well developed. The average length of the newborn kidney is 4.2 cm, the width is 2.2 cm in the area of the ends, 1.5 cm in the area of the gate, and the weight is 12 g. The left kidney is large compared to the right. The thickness of the bark substance of the baby's kidney is on average 2 mm, the maggiz substance is 8 mm, their ratio to each other is 1:4.

The upper end of the newborn kidney is located in the area of the upper edge of the XII thoracic spine. And the lower end is located in the area of the lower edge of the IV lumbar spine. While rib XII crosses the upper end of the left kidney, the upper end of the right kidney corresponds to the lower edge of rib XII. The newborn kidney is surrounded by three tiers of sheath. The renal fascia consists of a thin sheet of dorsal fascia on the abdomen. The kidney does not have a fat curtain. The fibrosis sheath of the kidney consists of thin connective tissue that clings to the renal parenchyma and separates easily. The newborn's renal jaw is broad, ampoule-shaped, and often localizes outside the kidney. Kidney cups appear at the end of fetal life. The purpose of the work is to observe specific morphological changes in the development of the kidney of infants who died from Aspiration Syndrome in the early postpartum and late neonatal period in postnatal ontogenesis.

**Object and subject of research.** At the Republican Center for pathological anatomy, a total of 48 patients in the postnatal neonatal period 2020-2023 received kidney tissue material from infants and infants who died early (0-7 days) of the neonatal period.

**Results obtained.** Microscopic tests of kidney tissue show that we study morphological changes in kidney tissue isolated in autopsies of infants diagnosed with Aspiration Syndrome in the neonatal period. Necrotic change in the kidney, which begins at a time when blood circulation is impaired, that is, when oxygen does not reach well, is referred to as ischemic duct necrosis. In this case, we will be able to see that the proximal part of the ducts and the descending part of the genle bladder are damaged. The onset of acute kidney failure is indicated by necrosis of the ducts. Based on this, damage to the ducts can be observed to cause the preglomerular arteriolarnig to tighten and constrict. It can be observed that this leads to a decrease in the filtration rate in the balls. Microscopy of ischemic necrosis affected kidney tissue found damage to short segments of the ducts. Epithelial cell necrosis is usually arang-perceptible and is determined by the difficulty of the basal membranes. The distal part of the ducts and the presence of protein cylinders in the collecting tubes are evidence of Aspiration Syndrome. We have observed that cells that have undergone necrosis and migrate pass into the lower sections of the ducts and form cylinders. It

will be possible to predict the accumulation of lymphocytes, macrophages around the affected membrane.

**Conclusion.** At the Republican Center for pathological anatomy, a total of 48 patients in the postnatal neonatal period 2020-2023 received kidney tissue material from infants and infants who died early (0-7 days) of the neonatal period. Microscopic examinations of kidney tissue during our study of morphological changes in kidney tissue isolated in autopsies of infants diagnosed with Aspiration Syndrome in the neonatal period, it became possible to see that the proximal part of the ducts and the descending part of the genle bladder were damaged. The onset of acute kidney failure was indicated by necrosis of the ducts

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