

Emergency! The fetus is at risk of apnea, and the maternal needs an emergency cesarean section! Abdulla mzee hospital, located in a small town Mkoani, is the medical center of the whole pemba island. Because of the high fertility rate in Zanzibar, there are many multipara and high-risk maternal. High-risk maternal are sent to Abdulla mzee hospital almost every day. Most of the high-risk maternal need emergency cesarean section to terminate the pregnancy, and the rescue of high-risk neonates often requires multidisciplinary cooperation. The 31st China Medical Team from Suzhou have become the absolute “main force”.



In the early morning of the first weekend in September 2021, a maternal with acute intrauterine distress required an emergency cesarean section. After the operating theater received the emergency notice from the obstetrics and gynecology department, all staff were immediately in place, and the patient was sent to the operating theater as soon as possible. Dr. Shan Xisheng, an Anesthesiologist from The First Affiliated Hospital of Soochow University, quickly performed spinal anesthesia, and Dr. Wang Juan, an Obstetrician, also took out the newborn in the shortest time. We found that the maternal amniotic fluid was polluted by the third degree, the newborn’s lips were cyanotic, and there was no spontaneous breathing, and the Apgar score was only 3 points. The atmosphere in the operating theater immediately became serious, and then we performed a tense and orderly rescue.



Dr. Shan immediately cleared his airway and used a mask to assist ventilation. Dr. wang also quickly got off the operating table to assist in the rescue. At the same time, we also called the pediatrician Dr. Li Chunjie and team leader Yin Jun for help. After a few minutes, the newborn was still not breathing spontaneously, and the heart rate was still less than 100 bpm. After a brief discussion, the team members decided to immediately use tracheal intubation to assist ventilation, a simple balloon to control breathing, and at the same time to take measures such as suction, heat preservation, and tactile stimulation. After about 10 minutes of resuscitation, the newborn resumed spontaneous breathing, with rosy skin and stable vital signs. After 15 minutes, the endotracheal tube was successfully removed, and everyone was relieved. The local doctors gave a thumbs up and said, “Good job, Chinese doctor!”



It is understood that intrauterine distress refers to fetal hypoxia caused by various high-risk factors. Neonatal birth asphyxia is often related to fetal distress. Therefore, once this happens, neonatal resuscitation needs to be performed immediately to relieve the hypoxic state of the neonate, otherwise it may cause irreversible neurological complications or even death. According to WHO, 700 thousands newborn died of neonatal asphyxia every year. The main causes of neonatal death are premature delivery, complications during delivery and congenital abnormalities. There are about 10 million newborn need neonatal resuscitation every year, including chest compressions, intubated to support respiratory function and initiate respirations after positive pressure ventilation.

International Liaison Committee on Resuscitation (ILCOR) was founded in 1992. Neonatal Resuscitation International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations was updated every 5 years from 2000. The main principle of neonatal resuscitation was ABCD (airway, breathing, Circulation, Drug). First, rapid assessment is very important. Is the newborn active or inactive? Then we initiate resuscitation and take corresponding measure. Is the newborn term gestation? Is the newborn breathing or crying? Is the newborn good tone? If say no, we should keep warm, open airway, dry the newborn's body, and stimulate the back or the foot of the newborn. Is the heart rate of the newborn below 100 bpm? Is the newborn gasping or apnea? If say yes, we should give positive pressure ventilation and SPO₂ monitoring. If the heart rate is still below 100 bpm, we should ensure adequate ventilation and consider endotracheal intubation. If the heart rate below 60 bpm more than 30 seconds after positive pressure ventilation, we should perform chest compressions and coordinate with positive pressure ventilation. We also consider give epinephrine through IV or trachea cannula. Resuscitation of high-risk neonates often requires the assistance of a team including anesthesiology, obstetrics and gynecology, neonatology, and midwives.

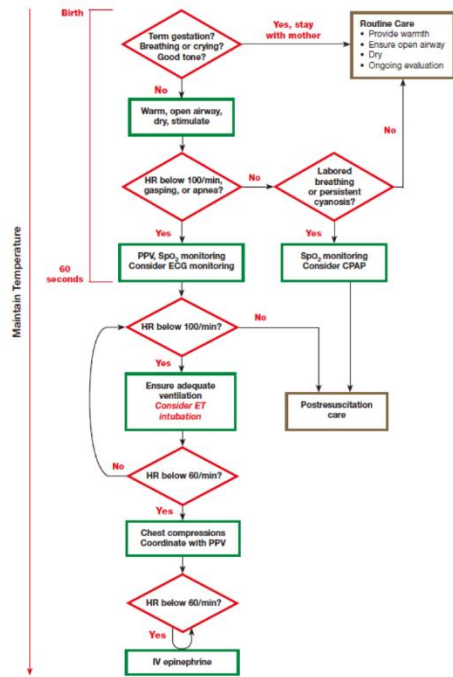
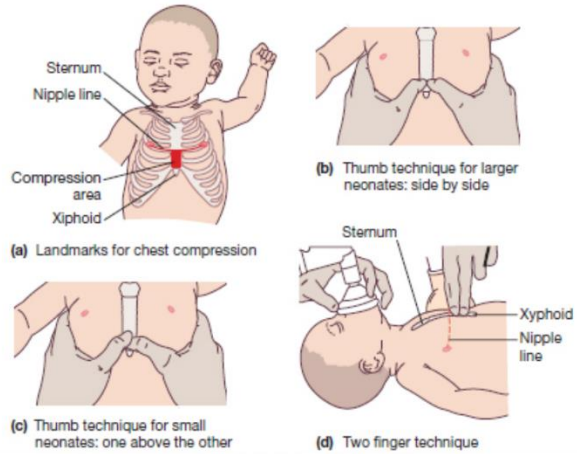


Figure 51.4 Apply pressure to lower third of the sternum



Effective neonatal resuscitation by well-trained personnel can greatly reduce mortality and morbidity. In order to better improve the medical level of local doctors, the resident physician training program of Chinese medical team has carried out training in neonatal resuscitation. During the training, Dr. Shan introduced the current condition of neonatal resuscitation in Abdulla mzee hospital and made detailed plans for neonatal resuscitation in the following year. This training received unanimous praise from local doctors.



Yin Jun, the team leader of 31st China Medical Team, said, “It is better to teach a man how to fish than give him a fish. Our mission is not only clinical work, but also truly leave a medical team to the local people that will never be taken away.”