



بحث بعنوان

(the critical conditions of some infant cases of children in Al Hamza Hospital)

مقدم الى مجلس كلية العلوم/ قسم الكيمياء كجزء من متطلبات

الحصول على شهادة البكلوريوس في علوم الكيمياء

من قبل الطالب (محمد صباح حنويت)

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السنة الدراسية ٢٠١٧/٢٠١٨

شكر وتقدير

الحمد لله والشكر له بما من علينا من نعمة والصلاة والسلام على خير عباده الامين محمد
واله الاطهار واصحابه الغر الميامين

اتقدم بجزيل الشكر والامتنان الى ابي وامي الذين وقفو معي في طول مسيرتي الدراسية
حيث لاطالما تمنو ان يروني في هذه المرحلة المتقدمة وها انا في هذا البحث احاول ان
احقق جزء مما يتمنون

وكذلك اتقدم بجزيل الشكر والتقدير والامتنان الى استاذتي (زينا محمد كاظم) على ما بذلته
من جهد ووقت لغرض الاشراف على بحثي ومتابعتها المستمرة لي بافكارها الجميلة
فجزاها الله خير الجزاء

كما اتقدم بخالص الشكر والتقدير الى جميع الاساتذة المحترمين في كلية العلوم /قسم
الكيمياء على كل معلومة تعلمتها منهم

واخيرا اشكر جميع اصدقائي الذين لم يبخلو علي بجهد او معلومة.

بسم الله الرحمن الرحيم

[وَلَقَدْ خَلَقْنَا الْإِنْسَانَ مِنْ سَلَالَةٍ مِّنْ طِينٍ * ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَّكِينٍ * ثُمَّ خَلَقْنَا النُّطْفَةَ
عَلَقَةً فَخَلَقْنَا مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ أَنشَأْنَاهُ خَلْقًا آخَرَ
فَتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ]

صدق الله العلي العظيم

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الخلاصة

حوالي اكثر من عشرة ملايين طفل في العالم يموتون في الشهر الاول من الحياة (بما يقارب مئة مليون يولدون) ان مايقارب ٧٥% من وفيات حديثي الولادة تحدث في الاسبوع الاول واكثر من ٢٥ % من هم يموتون في اليوم الاول من الحياة

الوفيات عند حديثي الولادة يمثلون ٣٥ % من الوفيات التي تحدث في الخمس سنوات الاولى من العمر في العالم (حسب احصائية منظمة الصحة العالمية) حيث تم دراسة الاطفال الراقدين في وحدة العناية بالخدج في مستشفى الحمزة العام وتم جمع اكثر من ٤٠ عينة لحالة الوفيات لمختلف الامراض المنتشرة

ان اكثر مرض منتشر في وحدة العناية بالخدج هو تسمم الدم الجرثومي حيث يعد من اخطر الامراض التي تؤدي الى وفاة اغلب الاطفال الذين يصابون به

تم تشخيص حوالي ثمانية امراض منتشرة في مستشفى الحمزة العام هي عسر التنفس ونقص وزن الوليد تشوهات القلب الولادية ذات الرئة التهاب القصبات تسمم الدم الجرثومي قصر فترة الحمل اليرقان الولادي

Abstract

More than ١٠ million children die in the first month of life (about ١٠٠ million born).

About ٧٥% of neonatal deaths occur in the first week and more than ٢٥% die on the first day of life

The mortality rate in neonates represents ٣٥% of the deaths in the first five years of life in the world (according to the World Health Organization), where the children who were in the preterm care unit were studied at the General Hospital of Hamzah. More than ٤٠ samples were collected for the various diseases

The most common disease in the neonatal care unit is bacterial septicemia, which is one of the most serious diseases that lead to the death of most children who suffer from it

About eight diseases were diagnosed in Al Hamzah General Hospital: dyspnea and neonatal depression, congenital heart defects, pneumonia, bronchitis, bacterial septicemia, shortness of pregnancy, obstetric jaundice



Image\

1-1 **Introduction**

more than ten million die in the first month of life over all the world (with more than one hundred million born annually), also approximately 90 % of death in neonate occur in the first seven days of life and more than 90% of them occur in the first day of life. ^[1] The death during neonatal life represent approximately more than 30% of death that occur below five years in the world. ^[2] The difference between western and middle east and Asian countries persists and in some cases has widened and this may be related to the availability of medical facilities. ^[3] Neonatal deaths account for a major proportion of child deaths globally. The main causes of neonatal deaths are immaturity, birth asphyxia, neonatal sepsis, congenital pneumonia, anomalies, tetanus and others. The hospital outcome of the neonatal unit and statistical rate of death in the neonatal unit differ from center to other according to the rate of management and availability of facilities and instrument required ^{[4], [5]}. the gestational age had a direct relation with neonatal death ^[6]. study of united nations Organization shows that

each year nearly more than three million babies are stillborn, and also more than three million more die within the neonatal life of coming into the world.^[٧] The aim of this study is to identify the main causes of neonatal death.

التهاب القصبات

١-٢-Bronchitis

– **Bronchiolitis is a common disease of the lower respiratory tract of infants, resulting from inflammatory obstruction of the small airways. It is a predominant viral illness, in which the RSV (respiratory syncytial virus) is the agent in more than ٥٠% of cases. It is not known how many children with genetic predisposition to atopy develop asthma symptoms after bronchiolitis, however the relationship between the two affections is not understood. We show that a major proportion of babies with a positive family history develops asthma at a younger age.**

Letters stressing an outburst of epidemics of bronchiolitis were recently published^[٧,٨]. More than ٣٠ babies were admitted to intensive care units and the colleagues stressed the necessity of providing adequate pediatric intensive care facilities. While I praise the love for children and the foresight demonstrated by the doctors, as an allergologist I fear that most of these children will suffer from asthma in the following years. A significant rate of infants with bronchiolitis will manifest hyperreactive airways during childhood, but the relationship between these two disorders is scarcely understood. In addition the reason by which children with genetic predisposition to atopy develop asthma symptoms after bronchiolitis has remained unanswered. Several studies have investigated this issue, however some failed to include a control group, others fixed the follow-up too many years after the initial illness^[٩-١١], and the role of atopy often remained in the background or the findings were contradictory.^[١١-١٢]

In a retrospective study done in our division were reviewed the record-charts of ١٤٩ children admitted ٦ years before to our department with the proven

diagnosis of bronchiolitis and selected 30 of them with the tables of aleatory numbers. The following data were checked: family history and personal history from the day of discharge to the day of the visit. Twenty-eight children (93%) had asthma, 11 (37%) recurrent respiratory disorders in winter, 34 (88%) were in good health. Family history was positive in 16/34 asthmatic (47%) and in 4/28 not asthmatic children (14%). All children with asthma were subjected to prick test for inhalants and foods, which were positive in 22 for Dpt, in 3 for molds, and 3 for cow's milk (the parents of two children refused this examination). In all not asthmatic children the results were negative^[13]. The data show a strong relationship between family history and asthma development in children with bronchiolitis, while the age at which the illness developed is equally stressed. The more younger were the infants the proner they were to develop acute bronchiolitis. In conclusion, this study has selected a cohort of children with bronchiolitis, all admitted to a university pediatric clinic because of their acute disease. Therefore this group was not selected among atopic sufferers. It has been long known that little infants have a particular susceptibility to viral infections, which can favour the development of lower airway obstruction, perhaps due also to a poor and age-related airway functioning^[14,15]. An alternative hypothesis could be related to eosinophil degranulation in the respiratory tract during RSV bronchiolitis, which is also related to the development of virus-induced airway obstruction^[16]. Although the number of children in this study was sufficiently ample (originally the sufferers of bronchiolitis were 149), further studies in unselected, hospital-based infants with bronchiolitis could evaluate whether the relationship between bronchiolitis and asthma should be widened to comprise atopy.

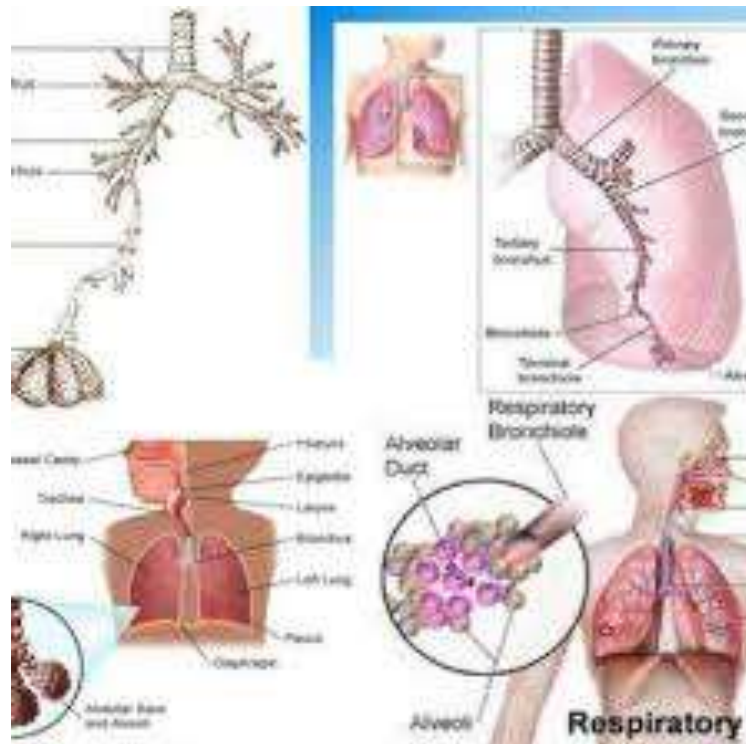


Image 2

shows bronchitis

١-٣-Bacterial septicemia

تسمم الدم الجرثومي

Neonatal sepsis may be categorized as early or late onset. Eighty-five percent of newborns with early-onset infection present within ٢٤ hours, ٥% present at ٢٤-٤٨ hours, and a smaller percentage of patients present between ٤٨ hours and ٦ days of life. Onset is most rapid in premature neonates. Early-onset sepsis syndrome is associated with acquisition of microorganisms from the mother^[١٧]. Transplacental infection or an ascending infection from the cervix may be caused by organisms that colonize in the mother's genitourinary tract, with acquisition of the microbe by passage through a colonized birth canal at delivery. The microorganisms most commonly associated with early-onset infection include group B Streptococcus (GBS), Escherichia coli, Haemophilus influenzae, and Listeria monocytogenes. Late-onset sepsis syndrome occurs at ٧-٩٠ days of life and is acquired from the caregiving environment. Organisms that have been implicated in causing late-onset sepsis syndrome include coagulase-negative staphylococci, Staphylococcus aureus, E coli, Klebsiella, Pseudomonas, Enterobacter, Candida, GBS, Serratia, Acinetobacter, and anaerobes. The infant's skin, respiratory tract, conjunctivae, gastrointestinal tract, and umbilicus may become colonized from the environment, leading to the possibility of late-onset sepsis from invasive microorganisms. Vectors for such colonization may include vascular or urinary catheters, other indwelling lines, or contact from caregivers with bacterial colonization (Remington & Klein, ٢٠٠١). The clinical signs of neonatal sepsis are nonspecific and are associated with characteristics of the causative organism and the body's response to the invasion. These nonspecific clinical signs of early sepsis syndrome are also associated with other neonatal diseases, such as respiratory distress syndrome (RDS), metabolic disorders, intracranial hemorrhage, and a traumatic delivery. Given the nonspecific nature of these signs, providing treatment for suspected neonatal sepsis while excluding other disease processes is prudent^[١٨,١٩].



Image 3

A child is infected with bacterial blood poisoning

Congenital heart defects are among the most common form of birth defects. More than ٣٢,٠٠٠ **infants are born each year with some form of heart defect** (١ out of every ١٢٥ to ١٥٠). The defect can be so slight that its effect does not appear for many years or until adulthood, while at other times the defect may require immediate attention.

Although heart defects are the leading cause of death in birth defect-related deaths, advances in medical care over the past few decades have drastically increased the chances of survival. The heart is formed in the lateral median fetal lobe of the fetus in the human embryo after three and a half weeks of pregnancy, where it is completed after eight months of pregnancy^[٢٠]. This period is considered to be a critical period for the formation of the heart. Embryonic growth is joined by the chemical bond between cells and their layers, which is expressed during the expression of genes. Malformations or defects in the presence of error in this process: errors in the chemical bond or genetic errors, which deteriorate during the growth stage and occur at a critical period for the growth of each member, including the Philippines. Congenital heart defects during the early growth of the effects of internal and environmental factors or both: internal causes of genetic causes and produce from Mutations in genes or abnormalities in the chromosome particles. External factors are the environmental conditions of the placenta and the uterus that may lead to congenital heart defects such as radiation, Alcohol abuse^[٢١], Lack of ketamine or excessive or diabetes or injury to pregnant women. German fever. The most common congenital heart defects are ventricular dysfunction, which accounts for about ٢٠% of the total heart defects and ١٠% of the atrial fibrillation. The left and right ears do not close completely and occur at a rate of ١ per ٢٥,٠٠٠ births and ١٠%.

The clinical presentations of CHD varies according to the type and severity of the defect. In neonatal period the presenting features of CHD are cyanosis (with or without respiratory distress), heart failure (with or without cyanosis), collapse, and abnormal clinical sign detected on routine examination (i.e. absent femoral pulse or

a heart murmur). But most cases are asymptomatic and discovered during routine neonatal check-up^[٢٧].

CHD not only contribute to a significant morbidity and mortality but also cause a tremendous psychological stress and economical burden to the whole family .However ,if the problem are recognized at earlier age, The chance of long term complications are less and the outcome is better .As a result of improved medical and surgical management ,most children with CHD are surviving into adolescence and adulthood

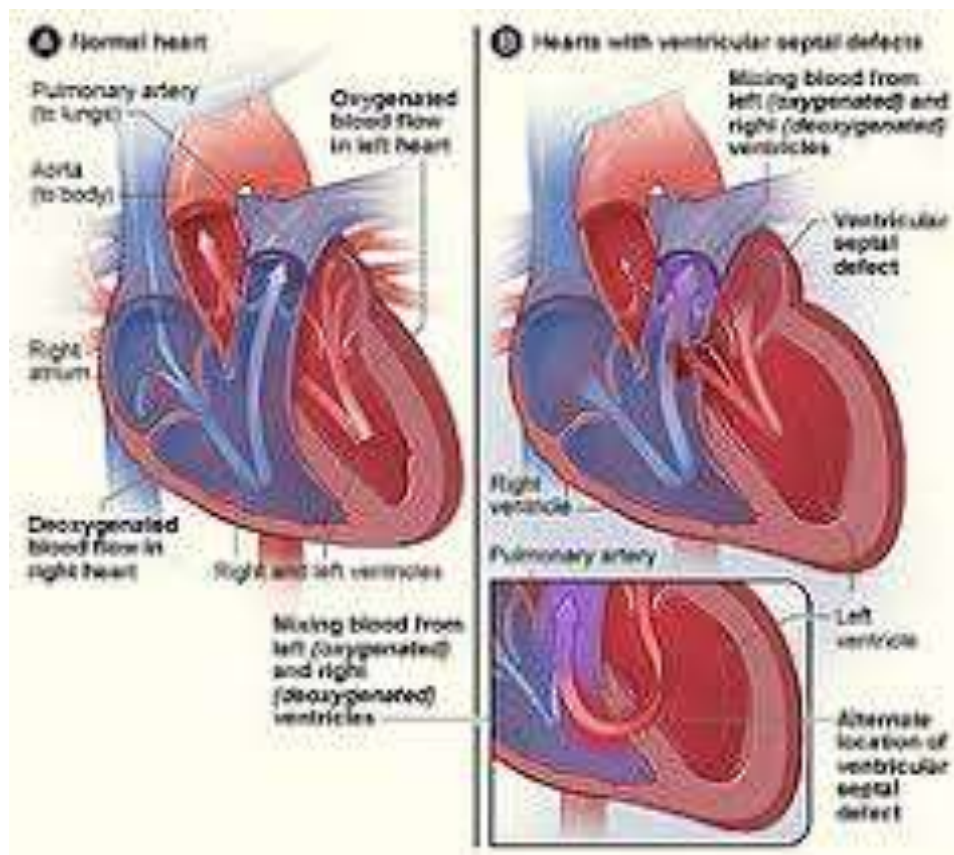


Image ٤

Clarification of heart abnormalities

١-٥-Pneumonic

cute respiratory infections [ARI] are one of the most important causes of morbidity and mortality in children throughout most of the world ^[٣٣]. Pneumonia refers to inflammation of pulmonary tissue and is associated with consolidation of alveolar spaces ^[٣٤]. Pneumonia may be caused by a variety of infectious agents (bacterial, viral, protozoal and fungal organisms) and inflammatory processes [systemic lupus erythymatosis [SLE], sarcoidosis, histocytosis] as well as some substance (hydrocarbons, smoke, dust, chemicals and gases) that are inhaled or aspirated ^[٣٥]. The most common cause of pneumonia in children is viral infection; bacterial infections account for only (١٠-٣٠%) of all pediatric pneumonia ^[٣٦]. People with suspected pneumonia should undergo medical evaluation including a through physical exam may not always distinguish pneumonia from acute bronchitis or other respiratory infections depending on the severity of illness, additional studies such as complete blood count, Children with dysfunction of blood cultures and sputum culture may be ^[٣٧] obtained immune system, malnutrition, or defects in the normal mechanisms of the lung are very susceptible to pulmonary infection. The causative agents often are unusual, opportunistic organism, including gram- negative bacteria Cytomegalovirus [CMV], Varicella, Pneumocystis carinii ^[٣٨] fact that sputum cannot be used at this age range [below ٦ months] because of difficulties in the utilization sample from infants ^[٣٩]

Besides, it has been widely appreciated for many years among physicians and microbiologists that blood cultures are among most important laboratory tests performed in the diagnosis of serious infections in infants ^[٣٠]. Meantime, blood cultures should be performed in patients with suspected bacterial pneumonia and do appear to have low sensitivity but are still worthwhile to identify the causative pathogens and corresponding susceptibilities to antimicrobial agents ^[٣١]. On the some manner, blood cultures appear to be the sole specimens used for the diagnosis of bacterial causative agents of infant

infections, hence bacterial isolates from blood is diagnostic of pneumonic infection in infants



Image°

Pneumonia in preterm infants

١-٦-Dyspnea

mild to moderate respiratory distress (RD) in fullterm neonate is a frequent condition resulting from defect in birth related changes with variable clinical course and complex etiology, and affect neonates after birth^[٣٢]. The incidence of respiratory dysfunction is inversely related to gestational age being more in ٣٧-٣٨ than, ٣٩-٤٢ weeks.

^[٣٣] Acute respiratory disease is, beside prematurity, the leading cause for hospitalization in neonatal intensive care units^[٣٤]. Neonatal respiratory distress is a common problem confronting family physicians. It is the most common reason that sick neonates require transfer to a referral center; about ٧٩% of all transports involved a baby with respiratory distress. Although respiratory distress may represent a benign, self limited process, it may also be the first sign of sepsis or serious cardiopulmonary disease^[٣٥]. The overall incidence of respiratory distress in term babies is (٤,٢%)^[٣٦]. The clinical presentation of respiratory distress in the newborn includes: apnea, cyanosis, grunting, inspiratory stridor, nasal flaring, poor feeding, tachypnea (more than ٦٠ breaths per minute), retractions in the intercostal, subcostal, or supracostal spaces^[٣٧]. The causes of respiratory distress can be divided into: upper airway abnormalities which include: choanal atresia, macroglossia, Pierre-Robin syndrome, lymphangioma, teratoma or other mediastinal masses, cysts, subglottic stenosis and laryngotracheomalacia,^[٣٨] lower airway abnormalities which include: Transient tachypnea of the newborn, Respiratory distress syndrome (hyaline membrane disease RDS), meconium aspiration syndrome, infection (e.g. pneumonia, sepsis)^[٣٩]. Non-pulmonary causes include birth asphyxia, anemia, congenital heart diseases, congenital malformation, medications, neurologic or metabolic

abnormalities, polycythemia, and pneumothorax.^[40,41] Respiratory morbidity is an important complication of elective cesarean section (ECS) in term infants. The incidence of respiratory distress was reported in 6% of newborns delivered by ECS versus 1% in infants born vaginally^[42]. Deliveries by cesarean section continue to increase in both developed and developing countries, rates as high as 20% have been reported in some regions^[43]. One third of RDS cases are potentially avoidable^[44]. Infants born at 37-38 wk by elective delivery are 120 times more likely to receive ventilatory support for surfactant deficiency than those born at 39-41 wk^[45]. A significant reduction in neonatal RDS would be obtained if ECS was performed after 39 gestational weeks of pregnancy^[46]. Some studies had shown that delaying non-urgent elective caesarean section until 39 weeks is much more effective in avoiding neonatal admission than giving antenatal steroids^[47]. Neonates with respiratory distress are 2-4 times more likely to die than those without respiratory distress so its prevention and adequate management will decrease mortality^[48]. This descriptive study was carried out to evaluate the cases of respiratory distress in early neonatal period in relation to causes, outcome, neonatal, maternal, labor and delivery characteristics in full term neonates.



Image ٦

A child with obstetric dysplasia

١-٧ Shortage of pregnancy

قصر فترة الحمل

A Preterm birth is a labor that occurs before the end of ٣٧th week of gestation. It occurs approximately ٩% to ١٠% of all pregnancies, any women having persistent four uterine contraction every ٢٠ minutes should be considered to be in labor^[٤٩]. A woman is documented as being in actual labor if she is having uterine contraction that cause cervical effacement over ٨٠% and dilation over ١ cm. A preterm labor is always serious because if it results in the infant's birth the newborn may be premature. Preterm birth are responsible for almost of infant deaths in the neonatal period^[٥٠]. A Preterm birth is a global problem of great importance in reducing the neonatal morbidity and mortality^[٥١]. The objective of healthy people (WHO for ٢٠١٥ are related to reducing maternal and neonatal mortality, low birth weight, premature labor, fetal deformity and improving the health of mothers^[٥٢]. Nearly a half million babies in United States that ١ out of every ٨ are born premature each year^[٤٩]. Abortion raises risk of premature birth among women who abort their first pregnancy.

١-٨-Low birth weight

Low birth weight infants are defined as : all infants whose birth weight is less than ٢٥٠٠ gm irrespective of the cause & without regard to the duration of gestation's age

Newborn infants can now be categorized as^[٥٣,٥٥]

١ .Appropriate for gestational age .

٢.Small for gestational age .

٣|.Large for gestational age .

About one third of low birth weight are small for date while two third of them are appropriate for gestational age and preteen, but in developing Countries ٧٠% of low birth weight infants are small for date^[٥٣,٥٤,٥٥] .

The incidence of low birth weight infants is about ٧% of total birth in UK &USA

The common causes of low birth weight infants are :

١ . Inherited factors ;

a. Constitutional ; a mother who has produce a small for date infant has

٢٠% chance of doing so in subsequent pregnancies infants whose parents are small tends to be small at birth ^[٥٥,٥٦,٥٧]

b. Chromosomal anomalies e g trisomy1٨ (Edwards Syndrome) ٤٥-OX(Turner Syndrome) ^[٥٤].

٢ . Malnutrition ; many studies support the importance of nutrition as a factor in intrauterine growth retardation although protracted and sever nutritional insult is required to produce such effect ^[٥٨].

٣, Infections e.g. maternal cytomegalic virus infection ^[٥٤,٥٩].

٤|.-Toxemia of pregnancy and hypertension^[٥٤,٥٥].

٥ . Placental causes.

٦ . Others e.g. multiple gestation , high altitude . teratogenic , low socioeconomic , first born infant and maternal polycythemia during the latter half of pregnancy ^[٥٤,٥٦].

Material and Methods :

The material was taken from the case sheets of ١٩٦ cases were admitted to the neonatal intensive care unit from delivery room at ٣ months of ٢٠٠٣ and ٤٠٤ cases admitted at ٣ months of ٢٠٠٩ .

Each study was including the following data in respect to every Case '

- ١- number of low birth weight infants classified according to body weight and gestational age^[١٠] .
٢. Mortality rate in relation to gestational age .
٣. Mortality rate in relation to body weight .
٤. Predisposing factors .
٥. Percentage of death in relation to total deliveries and to total admission to intensive care unit .

The total deliveries at delivery room Al-Battool hospital during i the 1st ٣ months ٢٠٠٣ was ١٥٧٠ and during the ١St during ٣ months ٢٠٠٩ was ٢١٤٤ .



Image٧

A child with low weight

٢-١ practical part

This study was conducted at Al Hamzah General Hospital in the preterm hall and more than ٤٠ samples were collected for the various diseases prevalent there According to

Table١

Table ١

The table shows the names of children who died in various diseases

اسم المتوفي	المرض	تاريخ الوفاة
١	بتول حسين ثميل	كانون الاول ٢٠١٤
٢	بنت منتهى مسلم	تشرين الأول ٢٠١٤
٣	مريم منتظر عب الله	ايلول ٢٠١٤
٤	ابن مريم عدنان كافي	نيسان ٢٠١٦
٥	حسين عيدان حسين	اذار ٢٠١٧
٦	علي قاسم جبير	كانون الاول ٢٠١٤
٧	حوراء حسين رضى	تشرين الاول ٢٠١٤
٨	صادق كرار قادر	نيسان ٢٠١٤
٩	بنت افراح علي	تشرين الاول ٢٠١٦
١٠	بنت رسل يونس	تشرين الاول ٢٠١٦
١١	عباس دهاب عبد	تموز ٢٠١٦
١٢	رقية سليم بشير	حزيران ٢٠١٦
١٣	حوراء عادل نومان	ايار ٢٠١٦
١٤	حسين عمران جابر	شباط ٢٠١٦
١٥	رقية صلاح صاحب	شباط ٢٠١٦
١٦	ملك محمد غانم	اب ٢٠١٦
١٧	نور الهدى سلمان	اب ٢٠١٧

١٨	بنت ولاء عبد الحمزة	تسمم الدم الجرثومي	شباط ٢٠١٧
١٩	جناة ناظم علاء	تسمم الدم الجرثومي	شباط ٢٠١٧
٢٠	بنين اسعد ادريس	قصر فترة الحمل	تشرين الثاني ٢٠١٤
٢١	بنت مروة حسين	قصر فترة الحمل	تشرين الثاني ٢٠١٤
٢٢	ابن اقبال فليح	قصر فترة الحمل	تشرين الثاني ٢٠١٦
٢٣	امير ميثم عوف	قصر فترة الحمل	نيسان ٢٠١٧
٢٤	حسين نعيم صباح	ذات الرئة	تشرين الثاني ٢٠١٤
٢٥	جناة مخلص مهدي	ذات الرئة	شباط ٢٠١٤
٢٦	علي مالك حسين	يرقان ولادي	تشرين الثاني ٢٠١٤
٢٧	حمزة علي حسين	يرقان ولادي	حزيران ٢٠١٤
٢٨	ابن رقية احمد	عسر التنفس	اب ٢٠١٤
٢٩	حمزة جبار فرهود	عسر التنفس	حزيران ٢٠١٤
٣٠	ابن سميرة حسن	عسر التنفس	تشرين الاول ٢٠١٦
٣١	ابن ولاء عسكر	عسر التنفس	تموز ٢٠١٦
٣٢	حسين امير كاظم	عسر التنفس	حزيران ٢٠١٧
٣٣	عبد الله عقيل سالم	عسر التنفس	ايار ٢٠١٧
٣٤	ابن سلوة ياسر جواد	نقص وزن الوليد	تموز ٢٠١٤
٣٥	كوثر احمد مردان	نقص وزن الوليد	نيسان ٢٠١٦
٣٦	ابن كريمة حسين	تشوهات القلب	شباط ٢٠١٤
٣٧	علي مسلم عبد السادة	تشوهات القلب	شباط ٢٠١٤
٣٨	زهراء حسين عبد الحسين	تشوهات القلب	شباط ٢٠١٤
٣٩	علي حسين نعيم	تشوهات القلب	تشرين الثاني ٢٠١٦
٤٠	علي اياد حاتم	عسر التنفس	كانون الثاني ٢٠١٤
٤١	بنت بيداء وادي	عسر التنفس	تشرين الاول ٢٠١٦
٤٢	كاظم شمران كاظم	عسر التنفس	تموز ٢٠١٦
٤٣	ابن سلامة عباس	عسر التنفس	اذار ٢٠١٧

المرضى	النسبة المئوية
نقص وزن الوليد	٤%
تسمم الدم الجرثومي	٣٢%
عسر التنفس	٢٣%
اليرقان الولادي	٢%
قصر فترة الحمل	٩%
تشوهات القلب	٩%
ذات الرئة	٢%
التهاب القصبات	١١%



Figure ١

Figure ١ shows the most common diseases that cause the highest incidence of infections in children in the hospital
General Hamzah

RESULTS

In the samples, the incidence of bronchitis is about ١١% as shown in Table ٢

Table ٢

Samples infected with this disease

٢٠١٤ كانون الاول	بتول حسين ثميل	١
٢٠١٤ تشرين الأول	بنت منتهى مسلم	٢
٢٠١٤ ايلول	مريم منتظر عب الله	٣
٢٠١٦ نيسان	ابن مريم عدنان كافي	٤
٢٠١٧ اذار	حسين عيدان حسين	٥

most important reasons

Bronchitis is usually caused by a viral infection, causing inflammation and irritation in the walls of the bronchial tubes and narrowing them, leading to the accumulation and retention .of mucus, making it difficult to enter and exit the lungs through the lungs

RSV is the main cause of the disease followed by Parainfluenza Virus and Adenovirus. .The other cases are caused by other types of viruses that cause influenza or flu

Most children develop bronchitis after having upper respiratory infection, such as colds or (flu. In rare cases, the pathogen may be a bacterial infection (mycoplasma pneumonia

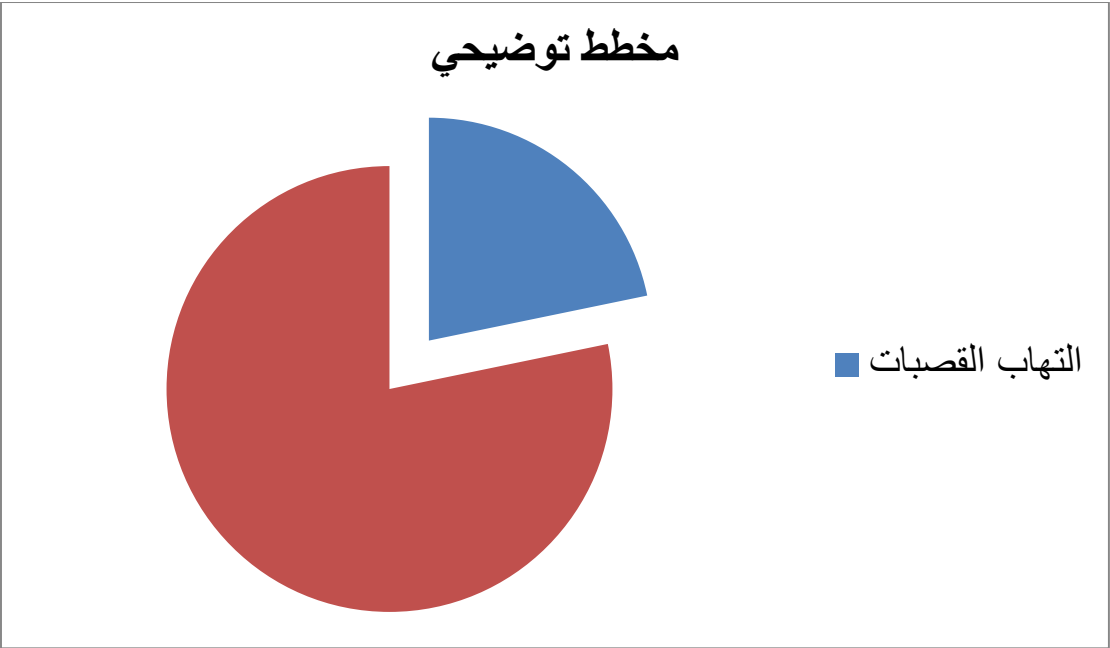


Figure ٢

Diagram shows bronchitis and other diseases

٢-٣ Bacterial septicemia

Results:

This study was conducted on the samples in Al-Hamzah General Hospital, where this disease is one of the most common diseases, as about ٣٢% of deaths are caused by this disease

Table ٣

Samples infected with this disease

١	علي قاسم جبير	كانون الاول ٢٠١٤
٢	حوراء حسين رضا	تشرين الاول ٢٠١٤
٣	صادق كرار قادر	نيسان ٢٠١٤
٤	بنت افراح علي	تشرين الاول ٢٠١٦
٥	بنت رسل يونس	تشرين الاول ٢٠١٦
٦	عباس دهاب عبد	تموز ٢٠١٦
٧	رقية سليم بشير	حزيران ٢٠١٦
٨	حوراء عادل نومان	ايار ٢٠١٦
٩	حسين عمران جابر	شباط ٢٠١٦
١٠	رقية صلاح صاحب	شباط ٢٠١٦
١١	ملك محمد غانم	اب ٢٠١٦
١٢	نور الهدى سلمان	اب ٢٠١٧
١٣	بنت ولاء عبد الحمزة	شباط ٢٠١٧
١٤	جناة ناظم علاء	شباط ٢٠١٧

most important reasons

Septicemia may occur in preterm infants through many factors that occur in the mother :during pregnancy

- ١-Injury of the mother with bleeding
- ٢-Fever is caused by infection in the placenta or uterus
- ٣-Difficulty of delivery
- ٤-Infection of the mother with urinary infections

٢-٤ Congenital heart defects

Results

A study of the mortality samples in Al Hamzah General Hospital revealed that the percentage of deaths from congenital heart disease is about ٩% of all deaths in the last four years

Table ٤

Samples infected with this disease

شباط ٢٠١٤	تشوهات القلب	ابن كريمة حسين	١
شباط ٢٠١٤	تشوهات القلب	علي مسلم عبد السادة	٢
شباط ٢٠١٤	تشوهات القلب	زهراء حسين عبد الحسين	٣
تشرين الثاني ٢٠١٦	تشوهات القلب	علي حسين نعيم	٤

most important reasons

Doctors say ٩٠ percent of the causes of heart defects in children are unknown. The remaining ١٠% may be either

١-Genetic causes

٢-the mother's injury to one of the types of viruses during pregnancy

٣-the mother's diabetes during pregnancy

٢-٥ Pneumonic

Results

The study found that children who die from the disease at Al-Hamzah General Hospital are very few compared with the other diseases. In addition to the samples we collected, it appears that children who die from this disease are about ٢% of other deaths

Table ٥

Samples infected with this disease

٢٠١٤ تشرين الثاني	حسين نعيم صباح	١
٢٠١٤ شباط	جناة مخلص مهدي	٢

most important reasons

١-bacterial infection

٢-viral infection-

٣-pneumonia due to infectious bacteria

٤-Tuberculosis

٢-٦Dyspnea

Results

The collection of samples in Hamzah General Hospital shows that the percentage of deaths due to dyspnea is about ٢٣% of the total number of deaths in the rest of the year

Table ٦

Samples infected with this disease

٢٠١٤ اب	ابن رقية احمد	١
٢٠١٤ حزيران	حمزة جبار فرهود	٢
٢٠١٦ تشرين الاول	ابن سميرة حسن	٣
٢٠١٦ تموز	ابن ولاء عسكر	٤
٢٠١٧ حزيران	حسين امير كاظم	٥
٢٠١٧ ايار	عبد الله عقيل سالم	٦
٢٠١٤ كانون الثاني	علي اياد حاتم	٧
٢٠١٦ تشرين الاول	بنت بيداء وادي	٨
٢٠١٦ تموز	كاظم شميران كاظم	٩
٢٠١٧ اذار	ابن سلامة عباس	١٠

most important reasons

The factor of genetics, this means the occurrence of this problem to one of the parents of the child in the past, or to his brother or to his sister. The mother is infected with gestational diabetes during pregnancy. To undergo cesarean delivery, since it is normal to give birth naturally. Stimulate preterm birth to complete growth at the fetus, where the growth of the child and his body requires a specific time. Many pregnancy problems in women, which adversely affect the normal delivery of blood to the fetus. Pregnancy with twins; two or more children with one child. Rapid births

٢-٧ Shortage of pregnancy

Results

During the collection of samples in the neonatal care unit it was found that the percentage of children who died of short-term pregnancy was about ٩% of the total number of deaths in the remaining diseases in the last four years

Table ٧

Samples infected with this disease

٢٠١٤ تشرين الثاني	بنين اسعد ادريس	١
٢٠١٤ تشرين الثاني	بنت مروة حسين	٢
٢٠١٦ تشرين الثاني	ابن اقبال فليح	٣
٢٠١٧ نيسان	امير ميثم عوف	٤

most important reasons

The present study found that age of women (٢٠-٣٤) years was (٥٤ %) which is risk factor contributed to preterm birth, which was approved by the another study who found that women < ١٥ and ≥ ٣٥ years of age are contributed to preterm birth ^[٤٩,٥٠]. The educational status of the study's women reveals that most of involved women were illiterates (٥٨%) which was a greater risk factor for preterm birth. This result was positive with result ^[٥٠]. Stated that women with ≤ ١٢ years of education had been risk factor contributed to preterm birth. Other risk factors that contributed to preterm births in

this study were passive smoking (٩٠%); Sexual activity (٢-٣) times /week were (٨٠%); Interval of pregnancy was (٥٨%) less than ٢ years intervals. These risk factors were in agreement with ^[٥٠], who studied the singleton preterm risk factors and association with assisted other factors.

٢-٨ Low birth weight

Results

Through the collection of samples for deaths in the hall of the care of preterm care was observed to register only two deaths of the disease in ٢٠١٤ and ٢٠١٦ as the proportion of children who died of this disease about ٤%

Table ٨

Samples infected with this disease

٢٠١٤ تموز	ابن سلوة ياسر جواد	١
٢٠١٦ نيسان	كوثر احمد مردان	٢

most important reasons

Thus the known causes of low birth weight babies are more during

Any unknown reasons are more in ٢٠٠٩, which is mostly attributed to malnutrition ٢٠٠٣ and psychological, social and economic conditions during these six years of insecurity, unstable and non-rapid conditions, and sad conditions that affect all basic services of life and especially health services

Table

The table shows the most important tips and guidelines for avoiding these diseases

results &Proposals	the disease
١-Clean place ٢-Wear the muzzle before dealing with the child and touch it to prevent ...the spread of infection ٣-Keep the contact surfaces in the home, kitchen and nursery clean and .sterile ٤-Not to share personal tools, especially drinking glasses ٥-the use of sterile solutions for hands or sterile tissues: in anticipation of taking any viral infection outside the home	Bronchitis
١-It is recommended that the WHO-approved age-standardized vaccine schedule be adhered to to avoid infection ٢-It is also recommended that sterilization and care of urinary or intravenous catheterization during hospitalization because it is an important source of blood infection	Bacterial septicemia
١-Review your pre-marital doctor ٢-change the offspring and the uncle of the marriage of relatives ٣-not to take any medicine without consulting the doctor	Congenital heart defects
١-attention to cleanliness of mother and place ٢-Avoid smoking near the baby	Pneumonic
١-Review of a specialized medical team ٢-The infant is given wet and warm oxygen with constant monitoring	Dyspnea
١-follow up the pregnancy regularly ٢-Do not take medicine without consulting your doctor ٣-Avoid smoking .	Shortage of pregnancy

ξ-Treatment of vaginal infections .	
ϑ-a good diet ϒ-the genetic factor ϣ-Continuous doctor review during pregnancy	Low birth weight

3-1 Reference

- 1- World health report 2000: Make every mother and child count. Geneva: WHO 2000.
- 2- Lawn JE, Cousens S, Zupan J. 4 million Lancet 2000; 360: 891-900.
- 3- Roth-Kleinberg M, Wagner BP, Bachmann D, Pfenninger F. Respiratory Distress Syndrome in Near-Term Babies after Caesarean Section. Swiss Med. Wkly 2003; 133: 283-288 Distress in the Community Hospital: When to Transport, When to Keep- Clinical Review. Journal of Family Practice 1998; 46: 284-289
- 4- Field D, Draper ES, Fenton A et al Rates of very preterm birth in Europe (2009) and neonatal mortality rates. Arch Dis Child Fetal Neonatal Ed 94:F203-206
- 5- Evans DJ, Levene MI (2001). Evidence of selection bias in preterm survival studies a systematic review. Arch Dis Child Fetal Neonatal Ed 84:F79-84
- 6- Moser K (2009). Gestation-specific infant mortality by social and biological factors among babies born in England and Wales in 2006. Health Stat Q 42: 78-90. 360: 891-897, 2000
- 7- (letter). BMJ 1992; 304:)GIBBS T, HARPER JR. Epidemic of bronchiolitis in infants. -444
- 8- DOYLE E, BRITTO J, BEST C. Epidemic of bronchiolitis in infants (letter). BMJ 1992; 304: 638
- 9- WITTIG HJ, CRANFORD NJ, GLASER J. The relationship between bronchiolitis and childhood asthma. A follow-up study of 100 cases of bronchiolitis in infancy. J Allergy 1909; 30: 19-23

-
- 10-EISEN AH, BACAL JL. The relationship of acute bronchiolitis and childhood asthma: a 4-14 year follow-up Pediatrics 1963; 31: 809-831
- 11-EVERARD ML, MILNER AD. The respiratory syncytial virus and its role in acute bronchiolitis. Eur J Pediatr 1992; 151: 638-651
- 12-TWIGGS JT, LARSEN LA, O'CONNELL ES, ILLSTRUP DM Respiratory syncytial virus infection. Clin Pediatr 1980-1987; 19: 1981
- 13-MURRAY M, WEBB MSC, O'CALLAGHAN C, SWARBRICK AS, MILNER AD. Respiratory status and allergy after bronchiolitis. Arch Dis Child 1992; 67: 482-487
- 14-LAING I, RIEDEL F, YAP FL, SIMPSON H. Atopy predisposing to acute bronchiolitis during an epidemic of respiratory syncytial virus. BMJ 1982; 284, 1070, 1072.
- 15-Mok jyg, Simpson h. Symptoms, atopy and bronchial reactivity after lower respiratory infection in infancy Arch Dis Child 1984; 59: 299-305
- 16-CARLSON KH, LARSEN S, ORSTAVIK I. Acute bronchiolitis in infancy The relationship to later recurrent obstructive airway disease. Eur J Respir Dis 1986-87: 198770.
- 17-RYLANDER E, ERIKSSON M, FREYSCHUSS U. Risk factors for occasional and recurrent wheezing after RSV infection in infancy. Acta Pædiatr Scand 1988; 88: 710-711
- 18-BUSINCO L, RUBERTO U, BUSINCO E. Contributo allo studio dei rapporti tra bronchiolite ed asma nel bambino. Riv Clin Pediatr 1968; 81: 1-3
- 19-CANTANI A. Epidemiology and prevention of respiratory allergy in children. Eur Rev Med Pharmacol Sci 1990; 12: 147-157

٢٠-MERTSOLA J, ZIEGLER T, RUUSKANEN O, VANTO T KOIVIKKO A, HALONEN P. Recurrent wheezy bronchitis and viral respiratory infections. Arch Dis Child. ١٢٩-١٢٤ :١٩٩١٦٦

٢١-GAROFALO R, KIMPEN JLL, WELLIVER RC, OGRA PL Eosinophil degranulation in the respiratory tract during naturally acquired respiratory syncytial virus. J Pediatr . ١٩٩٢; ١٢٠: ٢٨-٣٢

٢٢-Anwer SK, Mustafa S, Pariyani S, et ctl. Neonatal sepsis: an etiological study. J Pak Med Assoc ٢٠٠٠; ٥٠:٩١-٩٤.

٢٣-Dawood R A, Al-Umran K, and Tr, wun-Danse K. A case control study of neonatal sepsis: experience from Saudi Arabia. J Trop Pediatr ١٩٩٧; ٤٣:٨٤-٨٨.

٢٤-Stoii BJ, Holman RC, and Schuchat A. Decline in sepsis associated neonatal and infant deaths in the United States, ١٩٧٩ through ١٩٩٤. Pediatrics ١٩٩٨-١٠٢-١١٨

٢٥-Yacoub, A. A.; Al-Sadoon, I.; Hassan, G. G. & AlHemadi M., "Depleted uranium and health of people in Basrah; An epidemiological evidence." M. J. B. U (١٩٩٩) ٢٤-١٧:(٢&١) ١٧

٢٦-Becker H.C.; Diaz-Granados J.L. &

Randall C.L., "Teratogenic actions of ethanol in the

mouse: a minireview." Pharm. Biochem. & Behav

(١٩٩٦) ٥١٣-٥٠١:(٤) ٥٥

٢٧- Zile, M. H., "Function of vitamin A in vertebrate embryonic development.", J. Nutr ٢٠٠١. ١٣١(٣): ٧٠٥-٧٠٨

٢٨. Teixeira, L.M. [٢٠٠٤]. Characteristics of bacteria as etiological agents of acute respiratory infections in children: consideration for diagnosis. PP: ١٠٥-١١٥.

٢٩. Krecsmar, C.M. [٢٠٠٢]. The respiratory system. In Behrman, R.E.Nelson Essentials of pediatrics, W.B. Saunders Company, London.Pp.٤٥٩-٤٩٧.

٣٠. Chapel, H., Hacney, M. and Misbah,S. [١٩٩٩]. Essential of clinicalimmunology. Black well Science.

٣١. Franklin, M. [٢٠٠٤]. Pneumonia. N.Engle. J. Med. ٣٥٠:١٩٠,٤-١٩٣٠.

٣٢--Ben-Ami, R., Navon, V and Carmeli Y. [٢٠٠٣]. Infection of ventriculoatial shunt with phenotypically variable Staphylococcus epidermidis Masquerading as polymicrobial bacteria due to various coagulase-negative Streptococci and Kocuria .varians. J. C. Microbiology

.٢٤٤٧-٢٤٤٤:[٦]٤١

٣٣- . Gotoff, S.P. [٢٠٠٠]. Infections of the neonatal infant. In Behrman, R. E Kliegman, R. M, and Jenson, H. Nelson textbook of pediatrics. ١٦ ed. W.B Sanders. London.pp

٣٤-Washington, J. A. [١٩٧٥]. Bloodh culture: principle and techniques Mayo Clin. Proc.٥٠:٩١-٩٧

٣٥-[Guideline for the diagnosis and Alberta Medical Association [٢٠٠٢]
.management of community acquired pneumonia: Pediatric Avenue N.W

٣٦-Kuri S, Heinonen MK, Kiekara O. The First Chest Radiograph in Neonates Exhibiting Respiratory Distress at Birth. Clinical Pediatrics١٩٩٧; ٣٦(٥): ٢٨٥٢٨٩

٣٧-,.Donaldsson SF, Dagbjartsson A, Bergsteinsson H.

Hardardottir H, Haraldsson A, et al. Respiratory Dysfunction in Infants Born by Elective :.(Cesarean Section Without Labor. Laeknabladid ٢٠٠٧; ٩٣(١٠

.٦٧٩-٦٧٥

٣٨-,.Roth-Kleinberg M, Wagner BP, Bachmann D .

Pfenninger F. Respiratory Distress Syndrome in Near-Term Babies after Caesarean Section. Swiss Med. Wkly ۲۰۰۳; ۱۳۳: ۲۸۳-۲۸۸
Distress in the Community Hospital: When to Transport, When to Keep- Clinical Review. Journal of Family Practice ۱۹۹۸; ۴۶: ۲۸۴-۲۸۹

۳۹-Hein AH, Ely WJ, Lofgren AM. Neonatal Respiratory

۴۰-Kumar A, Bhat VB. Epidemiology of Respiratory Distress of Newborns. Indian Journal of Pediatrics. ۹۸-۹۳(۱)۶۳، ۱۹۹۶

۴۱-Christian LH, Kevin NL. Respiratory Distress in the Newborn. American Family Physician ۲۰۰۷; ۷۶(۷): ۹۹۴-۹۸۷

۴۲-Kumar A, Bhatnagar V. Respiratory Distress in Neonates. Indian Journal of Pediatrics . ۴۲۸-۴۲۵۲، ۰۰۵; ۷۲(۵

۴۳-Alvaro EA, Rigatto H. Cardiorespiratory Adjustments at Birth. In: MacDonald, Mhairi G Seshia (eds). Avery s Neonatology: pathophysiology and management of the newborn Philadelphia. Lippincott Williams and Wilkins Co ۶۶۰-۶۳۲ ; ۲۰۰۵

۴۴--Carlton PD. The Newborn Infant: Transitional changes in the newborn infant around the time of birth. In: Rudolph DC, Rudolph MA, eds). Rudolph) Hostetter KM s Pediatrics. New York McGraw-Hill Co. ۲۰۰۳; ۸۰-۸۳

۴۵-Majeed R, Memon Y, Majeed F, Shaikh PN, Rajar DU. Risk Factors of Birth Asphyxia. Journal of Ayub Medical College. Abbottabad ۲۰۰۷; ۱۹(۳): ۶۷-۷۱

۴۶-Dehdashtian M, Riazi E, ALetayeb HM. Influence of Mode of Delivery at Term on the Neonatal Respiratory Morbidity. Pakistan Journal of Medical Science ۲۰۰۸; ۲۴(۴): ۵۵۶-۵۵۹

٤٧-Hansen KA, Wisborg K, Uldberg N. Risk of .

Respiratory Morbidity in Term Infants Delivered by Elective Caesarean Section: cohort
.٩٢-٨٥ :٣٣٦study. BMJ ٢٠٠٨

٤٨-Wax J R, Herson V, Carignan E, Mather J, Ingardia .

JC. Contribution of Elective Delivery to Severe Respiratory Distress at Term. American
Journal of

.Perinatology ٢٠٠٢; ١٩(٢): ٨١-٨٦

٤٩-Madar J, Richmond S, Hey E. Surfactant-Deficient Respiratory Distress after Elective .
.Delivery at Term Acta Pediatr. ١٩٩٩; ٨٨(١١): ١٢٤٤-١٢٤٨

٥٠-Zanardo V, Simbi AK, Franzoi M, Solda G, Salvadori .

A, Trevisanuto D. Neonatal Respiratory Morbidity Risk and Mode of Delivery at Term:
Influence of Timing of Elective Caesarean Delivery. Acta Paediatrica ٢٠٠٤; ٩٣(٥): ٦٤٣-
.٦٤٧

٥١-Stutchfield P, Whitaker R, Russell I. Antenatal Betamethasone and Incidence of
.Neonatal Respiratory Distress after Elective Caesarean Section BMJ ٢٠٠٥; ٣٣١: ٦٦٢٤

٥٢-Mathur NB, Garg K, Kumar S. Respiratory Distress in Neonates with Special .
Reference to Pneumonia Indian Pediatrics ٢٠٠٢; ٣٩: ٥٢٩-٥٣٧

٥٣-. Back, W. Preterm Labor and Birth: Abortion raises risk of premature birth. March
of Dimes, ٢٠١٢, p. ٢

٥٤-. Tepper, NK. Singleton preterm risk factors and association with assisted: Cited by

٥٥- Related articles. Maternal Child Health J., ٢٠١٢, ١(٤): PP. ٨٠٧-١٣

٥٦-. Centers for Disease Control and prevention. Premature Birth, ٢٠١٢, P. ٥

٥٧-. Nainggolan, L. Premature birth should be new risk factor. PDF Version, Oxford
UK, ٢٠١٢, P.١٠

٥٨ . Behrman Kliegman Jenson: Nelson Text Book Of Pediatrics ,
NewYork , Judith Fletcher . ٢٠٠٤:٥٥٠ .

٥٩ . John P. Cloherty and Ann Restark :Manual Of Neonatal Care ٧nd ed

٦٠ -.Fetal and Neonatal Medicine :clarence W.Gowen,-tr. ٧n: Nelson