

## Study Of The Congenital Malformations Causing Dystocia In The Najif Obstetric Hospital.

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### الخلاصة

أجريت الدراسة في مستشفى الولادة في النجف للبحث عن عدد المواليد المصابة بتشوهات خلقية في المدة الزمنية الممتدة ما بين شهر تشرين الأول ، تشرين الثاني و كانون الأول لسنة 1999 . أظهرت نتائج الدراسة أن النسبة المئوية للتشوهات كانت 1% ، 1,46% ، 1,82% للأشهر الثلاثة على التوالي. ملت التشوهات الخلقية الجهاز القلبي الوعائي ، الجهاز الهضمي ، الجهاز العصبي ، الجهاز العضلي ومتلازم دوران بلاضافة إلى متلازمة أدوار . وكانت التشوهات الخلقية نتيجة عوامل بيئية أوكتسبة أو التعرض النساء الحوامل جرعة عالية من الأشعة أو تعاطي أدوية طبية معينة ، أو معاناة النساء الحوامل لنقص التغذية ، كذلك الانفعال النفسي بالأضافة إلى الصدمات خلال مدة الحمل .

### Abstract

The present study was conducted in the obstetric hospital in the number of infected neonatal by congenital malformations in the period extend among October , November and December in the year of 1999 . The present study revealed the congenital malformation percentage was 1% , 1.46% and 1.82% for the three months respectively and including congenital malformation of the cardiovascular system , digestive system , nervous system , muscular system and down s syndrome as well as Edward s syndrome. The congenital malformations was due to acquired or environmental factors , or exposure of the pregnant women to large doses of radiation or certain medical drugs or the pregnant women were suffering from malnutrition also psychiatry emotional as well as the shocks during the pregnancy period .

## **Introduction**

Organ or structures may reveal arrested development, the absence of development such as agenesis or aplasia, or incomplete development (hypoplasia) (6). The frequency of congenital defects in mammals is not known. Congenital defects are caused by hereditary and environmental factors, or their interactions, the frequency of individual defects, or defects of each body system and the total number of defects likely in a species will vary among breeds, geographic areas, years and seasons and age of parents (7). There may be failure of an embryonal or fetal structure to disappear when it normally persistence of the ductus arteriosus or the thyroglossal duct; failure of overlying skin to disappear from the anal opening (atresia ani). Certain opening, groove and fissures may fail to close properly. Many of these defects occur in the midline due to lack of closure of the neural groove, for examples cleft palate, patent foramen ovale in the heart (8). The causes of many congenital defects are due to viral agents as teratogens are well established. Infection with panleukopenia virus causes cerebellar hypoplasia (12). Hereditary defects are pathophysiologic results determined by mutant genes or chromosomal anomalies (14). Congenital defects of the central nervous system are common, and structural change involves both skeletal structures. Anencephaly is of unknown cause, involving non closure of the cranial portion of the neural tube and failure of the cranium to develop (13). Most human cases are sporadic with familial forms showing considerable phenotype and etiologic heterogeneity (5). Developmental defects (partial atrophy, hyperplasia, hypotrophy, hypertrophy, deformation, dysplasia) in the higher vegetative centers in case of hydrocephaly in fetuses and newborns are described by (9). Congenital tremor is a disease of neonatal pigs characterized by rapid, repeated contraction and relaxation of one or more skeletal muscle groups (16). Absence of the tricuspid valve, atrial and ventricular septal defects was diagnosed in the fetus during the second trimester of pregnancy by (3).

The aim of this study conducted to identified the congenital malformations in the newborn infants and to describe the pathological symptoms of these congenital anomalies .

### **Materials and Methods**

The study was carried-out in the obstetric hospital in the Najif . The continuous vists was done to diagnosed the congenital malformations for the months October , November and December / 1999 . The number of normal parturitions for each month during period of this present study , also the number of the congenital malformations cases were recorded according to the following formula :

$$\text{The congenital Malformations \%} = \frac{\text{malformations neonatal number}}{\text{Normal neonatal number}} \times 100$$

This present study was described the pathological symptoms for each congenital malformation case and investigated the causes lead to occurring these deformities .

### **Results and Discussion**

The present study revealed the numbers of the normal parturitions for three months October , November and December / 1999 was 797 , 821 , 875 at respectively . While the number of the newborn infants with congenital malformations was 8 , 12 , 16 respectively . The congenital malformations percentage for three months was 1% , 1.46 % , 1.82 % respectively ( table .1). In this present study was recorded the types of the congenital malformations and carried-out diagnosis these deformties in the hospital for each month during period of the study , These informations were presented in the ( tables , 2, 3 and 4) .The gross-pathological symptoms descriptions for congenital malformations : Imperforated anus or atresia ani were common among congenital anomalies , the newly born

infant was devoid from anus opening with history of no defecation . This congenital malformation was operated successfully under local anesthesia .Umbilical hernia : due to atony in the abdominal muscles which lead to project part of the small or large intestine in the umbilical region . The cleft lip : occur in the upper lip due to failure of the embryo growth during the first three months of the pregnancy . The cause of the cleft palate due to failure of the fusion of the month roof bones . Exomphalose : the viscera of the newborn infant project out due to failure of the abdominal wall growth . in the case of the spina bifida absence of the bony wall of the vertebral column that surrounded the central canal of the spinal cord .Hydrocephally : accumulation of the cerebrospinal fluid in the brain ventricles which lead to increase in the head size . Anencephaly : the skull roof or the upper part of the head was absence; instead of the prosencephalon and diencephalons there is spongy mass represented nervous vascular tissue . The hip dislocation was common congenital malformation,with higher percentage in the female than male infants. The head of the femur project out from the hip joint . The symptom of the club-foot was sever curvature in the foot, the causes of this malformation is unknown, There are little informations about the congenital heart diseases, these diseases was common in the Mongol infants due to abnormal chromosomes. The congenital heart diseases involved ventricular and atrial septal defects, aortic stenosis and pulmonary stenosis as well as dextro cardia, when the apex of the heart located in the right side of the infant body instead of the left side. Erythroblastosis fetalis :Occur due to uncrossponding in the blood groups between the mother and the father, this result lead to uncomplete growth of the newborn infants. Down s syndrome pathological symptoms , the infants head was small size, circular face, the orbits adjacent to each other, the tongue project out from buccal cavity , there is thickness and shortness in the infant hands. While the symptoms of Edward s syndrome was depression in the ears location, the sternum was short , there is adhesion between second

and third phalanx of the infants foot. Polycystic kidney s was diagnosed by x-ray, hyperatrophy of the left and the right kidneys and surrounded by cysts. Similar findings have been investigated by author (15) about the imperforated anus and umbilical hernia in the bovine .

Our observations in cases of the hydrocephalus and spina bifida are in agreement with that investigated by ( 1,2,5,9 ) , They described the hydrocephalus and spina bifida , the hydrocephaly appear to represent an autosomal recessive from of the hydrocephalus , and they suggested these congenital malformations due to neural tube defects . Identical results about the hip dislocation have been recorded in the newborn infants by (4) who described the occurrence and development of the ossification of the femoral head on x-ray films were studied in ( 85) newborn infants with hip joint dislocation . Delayed development was found to be related to the severity of the dysplasia . Our results about the heart congenital diseases seem to agree with a previous studies ( 3 ) who mentioned a fetal echocardiography was used to evaluate a fetal at ( 20 ) weeks of gestation because intermittent bradycardia had been auscultated at ( 14 ) weeks of gestation . Real examination of the four-chamber view suggested ventricular disproportion with the left ventricular larger than the right , absence of the tricuspid valve , atrial and ventricular septal defect as well as dilated mitral valve . While the workers ( 10 , 17 ) They reported Berry aneurysms and cerebral venous thrombosis as a cause of neonatal seizures. The polycystic kidney s cases in this present study was not corresponding to previous study (11) who diagnosed in two brothers newborn infants with congenital myotonic dystrophy also had cystinuria with large renal stone . The polycystic kidney s may be due to excessive activation in the embryonic connective tissue growth , and enlargement of the kidney tubules .

**Table .1.**

<b>The month</b>	<b>Number of normal parturitions</b>	<b>Number of congenital malformations</b>	<b>Deformties percentage</b>
<b>October</b>	<b>797</b>	<b>8</b>	<b>1</b>
<b>November</b>	<b>821</b>	<b>12</b>	<b>1.46</b>
<b>December</b>	<b>875</b>	<b>16</b>	<b>1.82</b>

**Table .2:show the types of the congenital malformations cases were recorded in the October.**

	<b>Type of congenital malformations</b>	<b>The cases number</b>
<b>1-</b>	<b>Cleft – palate</b>	<b>1</b>
<b>2-</b>	<b>Spina bifida</b>	<b>3</b>
<b>3-</b>	<b>Hydrocephally</b>	<b>1</b>
<b>4-</b>	<b>Spina bifida and hydrocephally</b>	<b>1</b>
<b>5-</b>	<b>Anencephaly</b>	<b>1</b>
<b>6-</b>	<b>Club foot</b>	<b>1</b>

**Table.3:show the congenital malformations cases were recorded in the November .**

	<b>Types of congenital malformations</b>	<b>The cases number</b>
<b>1-</b>	<b>Imperforated anus</b>	<b>1</b>
<b>2-</b>	<b>Umbilical hernia</b>	<b>1</b>
<b>3-</b>	<b>Cleft – lip</b>	<b>1</b>
<b>4-</b>	<b>Spina bifida</b>	<b>1</b>
<b>5-</b>	<b>Hydrocephally and spina bifida</b>	<b>1</b>
<b>6-</b>	<b>Club foot and imperforated anus</b>	<b>1</b>
<b>7-</b>	<b>Dislocation of the hip</b>	<b>1</b>
<b>8-</b>	<b>Congenital heart disease</b>	<b>2</b>
<b>9-</b>	<b>Erythroblastosis fetalis</b>	<b>1</b>
<b>10-</b>	<b>Down s syndrome</b>	<b>2</b>

**Table .4 :** show the types of the congenital malformations cases were recorded in the December .

	<b>Types of congenital malformations</b>	<b>The cases number</b>
1-	<b>Cleft - lip</b>	<b>1</b>
2-	<b>Exomphalose</b>	<b>1</b>
3-	<b>Spina bifida</b>	<b>2</b>
4-	<b>Hydrocephally</b>	<b>1</b>
5-	<b>Hydrocephally and spina bifida</b>	<b>1</b>
6-	<b>Anencephaly</b>	<b>1</b>
7-	<b>Club – foot</b>	<b>1</b>
8-	<b>Club – foot and dextrocardia</b>	<b>1</b>
9-	<b>Erythroblastosis fetalis</b>	<b>1</b>
10-	<b>Down s syndrome</b>	<b>1</b>
11-	<b>Edward s syndrome</b>	<b>2</b>
12-	<b>Poly cystic kidney s</b>	<b>3</b>

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