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RESEARCH ARTICLE

LES MALFORMATIONS CONGÉNITALES À RÉVÉLATION NÉONATALE À PROPOS DE 81 CAS EXPÉRIENCE DU SERVICE DE RÉANIMATION NÉONATALE CHU MED VI TANGER

NEONATAL CONGENITAL MALFORMATIONS: A CASE REPORT OF 81 CASES EXPERIENCE OF THE NEONATAL INTENSIVE CARE UNIT, CHU MED VI TANGIER

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Abstract

The aim of this study is to describe and analyze the various congenital malformations diagnosed in our department, and to cite some probable etiological factors. Over a one-year period, we collected 81 cases of newborns with clinically apparent congenital malformations. Boys were the most affected in 55.5% of cases, with a sex ratio of 1.25. Musculoskeletal malformations accounted for 30.8% (25 cases), followed by polymalformations 27.1% (22 cases), CNS malformations 22.2%, digestive tract and anterior abdominal wall malformations 12.3% (10 cases) and urogenital malformations 7. 4% (6 cases of hypospadias). We noted a relationship between the occurrence of congenital malformations and advanced maternal age ($p<0.05$), parity ($p<0.05$), the presence of a chronic pathology in the mother, mainly diabetes ($p=0.02$), and family history of congenital malformation ($p<0.001$).

Introduction:-

Congenital malformations are a real public health problem. Their etiology is multifactorial, determined by a series of genetic and environmental factors**[1]**.

Materials and Methods:-

The aim of this study is to describe and analyze the various congenital malformations diagnosed in our department, and to cite some probable etiological factors.

This is a prospective descriptive and analytical study of 81 cases of newborns hospitalized in the neonatal intensive care unit of CHU Med VI in Tangier over a one-year period from February 01, 2023 to January 31, 2024. The cases were processed and analyzed using SPSS software.

Results:-

A total of 487 births were hospitalized during our study period, of which 81 cases, or a percentage of 8.6%, were carriers of clinically apparent congenital malformations. The average age of the mothers was 31.4 +/- 6.5 years

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(ranging from 21 to 41 years). Multiparous women accounted for 58% (47 cases) of mothers with a malformed newborn, and 17.2% (14 cases) had a family history of congenital malformation. Pregnancy was poorly monitored in 60% of cases. Males were most affected in 55.5% of cases, with a sex ratio of 1.25 **(Figure 1)**. The average age of malformed newborns was 2 days ± 1.56 (1 day and 11 days), and 66 cases (81.4%) were born at term. Musculoskeletal malformations accounted for 30.8% (25 cases), followed by polymalformations 27.1% (22 cases), CNS malformations 22.2% (18 cases: 10 hydrocephalus, 5 spina bifida and 3 anencephaly), digestive tract and anterior abdominal wall malformations 12.3% (10 cases) and urogenital malformations 7. 4% (6 cases of hypospadias) **(Figure 2)**. We noted that there was a relationship between the occurrence of congenital malformations and advanced maternal age ($p<0.05$), parity ($p<0.05$), the presence of chronic pathology in the mother, mainly diabetes ($p=0.02$), and family history of congenital malformation ($p<0.001$) **(Figure 3)**.

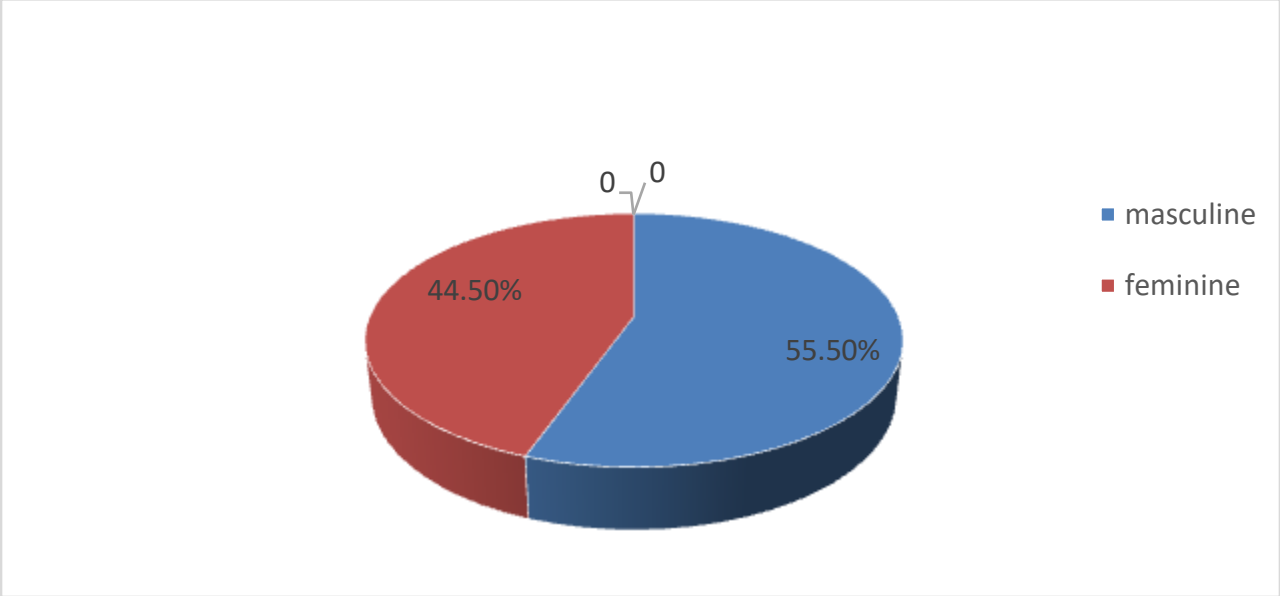

Figure 1:- Male prevalence.

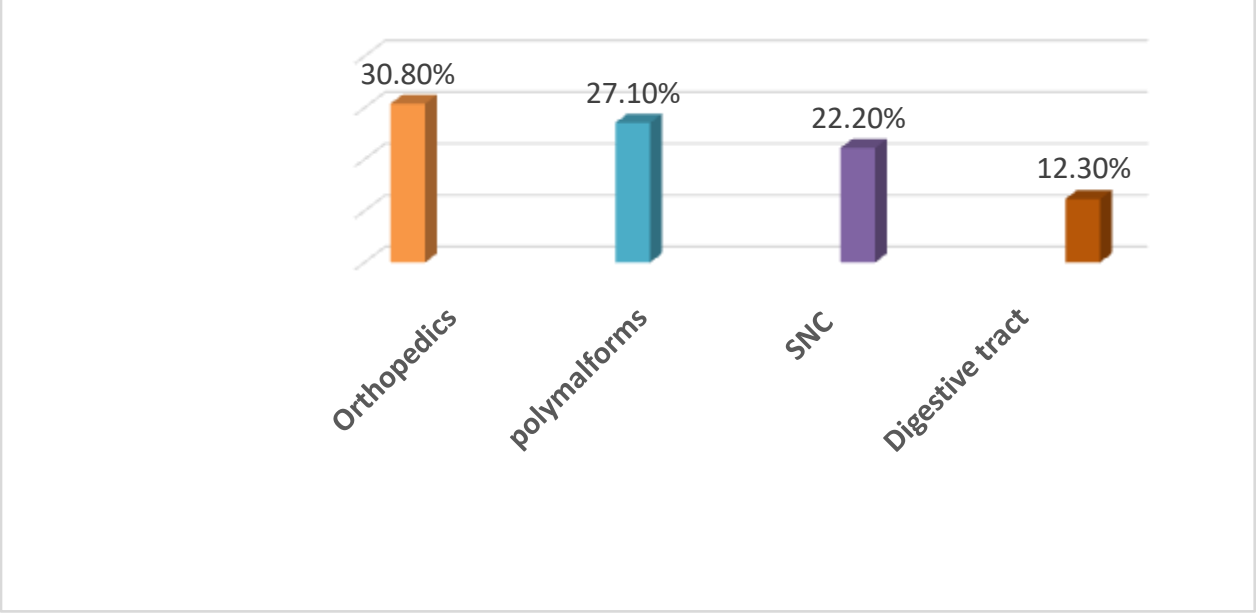

Figure 2:- Topography of congenital malformations.

Risk factors in congenital malformations	Significance level
Advanced maternal age (>35 years)	P<0,05
Parity	P<0,05
Chronic pathologies in the Mother	P<0,02
Family history of congenital malformation	P<0,001

Figure 3:- Risk factors for congenital malformations.

Discussion:-

In our study, male sex predominated with 55.5%. This rate is close to that found by Coulibaly F et al **[2]** (67.77%) and Hama A et al **[1]** (67.09%). Youl H **[3]** also found a male predominance with 53.6%. Our result is contrary to those of Abraham**[4]** and R. M. Mashako et al **[5]** who found a female predominance with rates of 54.54% and 53.8% respectively. The frequency of congenital malformations in our study is 8.6%. The diagnosis of these malformations was essentially clinical. The frequency of these anomalies varied from series to series. This could be explained by the target population or sample size, depending on the study. Our result is close to that reported in a Nigerian study (7.85%**[1]**), but higher than that reported in a CHU de RABAT study (4%**[6]**), an Egyptian study (2%**[7]**) and an Indian study (1.03%**[8]**), although the rate reported in a study carried out in Haiti is higher (14.8%)**[9].**In our study, malformations of the musculoskeletal system were the most frequent at 30.8%, followed by polymalformations at 27.1% and CNS malformations at 22.2%. We believe that this last significant rate of nervous system malformations could be explained by the absence of folic acid intake in the pre-conceptional period and during the third trimester of pregnancy in the mothers. Studies in Morocco (Rabat University Hospital **[6]**) and Africa (Burkina Faso **[3]** and Nigeria **[1]**) show that these same malformations are the most prevalent. Other studies carried out in developed countries, on the other hand, show that cardiac anomalies predominate **[10, 11]**. We have noted that there is a relationship between the occurrence of congenital malformations and: parity ($p<0.05$), the presence of a chronic pathology in the mother, essentially diabetes ($p=0.02$), a family history of congenital malformation ($p<0.001$) and advanced maternal age ($p<0.05$). This last result is in line with the observations of several authors who found a significant association between advanced parental age and a high risk of malformed births **[12,13]**. As for the rest of our results, they are close to those reported in other studies: for example, at the University Hospital of Rabat **[6]**,Risk factors significantly associated with the occurrence of congenital malformations were the use of drugs (antiepileptics) and/or herbs (fenugreek) during pregnancy ($p < 0.001$), the presence of a chronic pathology in the mother, mainly diabetes ($p < 0.001$), a family history of congenital malformation ($p < 0.001$) and twin pregnancies ($p = 0.028$). In India **[8]**, multigestitewas a risk factor for congenital malformation.

Conclusion:-

Congenital malformations are frequent in our context. The search for the factors involved offers hope for mothers at risk. We stress the importance of pregnancy follow-up and education in health centers, with collaboration between gynecologists and neonatologists.

Conflict of interest:

The authors declare that they have no conflicts of interest in relation to this article.

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