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## CONGENITAL DISORDERS AND POLYHYDRAMNIOS WITH SUSPECTED EDWARDS SYNDROME

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KEYWORDS	ABSTRACT
abnormalities edwards labiopalatoskisis, polyhydramnios.	congenital, syndrome, pjt, The aim of this research is to identify and analyze congenital disorders and polyhydramnios with suspected Edwards syndrome. The method used in this study is a case report of a 43-year-old patient with a gravidity of G4P3A0H3 at 39-40 weeks of gestation. The results of this research indicate that congenital anomalies are inherent and defined as structural, functional, or metabolic abnormalities due to malformation of the contents. In 2010, congenital anomalies accounted for 10.5% of neonatal deaths. These anomalies are congenital in nature and are usually found independently, but multiple anomalies can be present together in a condition. Finding one anomaly can provide a favorable prognosis, but finding several anomalies can disrupt the baby's well-being. In the study, we report a neonate with congenital anomalies (anal atresia, micrognathia, bilateral cleft lip and palate, low-set ears, and rocker bottom foot). There is no history of illness, family and obstetric history, and no experiential disorders.

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DOI: 10.58860/ijsh.v2i8.66

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### INTRODUCTION

Abnormalities are congenital and are the reason for the main death of babies in developed and developing countries (Fajrin et al., 2022). Abnormalities congenital in infants and newborns can form One type of abnormality or can also be several abnormalities congenital together as abnormality congenital multiple (Simangunsong & Atifah, 2022). Sometimes something abnormality congenital is Not yet found or Not yet seen on time the baby is born; however, new found some time after birth baby. On the contrary, with progress in technology medicine, sometimes something abnormality congenital is known during fetal life. When found One abnormality is congenital big on babies newborn, necessary vigilance possibility exists abnormality congenital in place other. It says that when found two or more abnormalities congenital small, he probably found an abnormality congenital large elsewhere by 15 %; meanwhile when found three or more abnormalities congenital small, he probably found an abnormality congenital big by 90% (Yunani et al., 2016)

In developed countries, such as the United States, about 3% of babies born (120,000) will own some disabled-born main (Jatmiko, 2013). Temporary separate efforts have monitored happening disabled birth, role disabled born in happening birth premature No Good understood.

In Indonesia, around 2% of all born babies bring disabled congenital seriously that is threatening to life, cause permanent disability, or needs surgery To fix it. Death is more Lots happened at the start of life and more a lot in children male in all ages. This is because only A little knowledge have about why abnormality is congenital. Defects in single genes and disorders chromosome are responsible answer about 10-20% of the total disability that occurs. A small portion related to infection intrauterine (e.g., cytomegalovirus, rubella), more A little Again caused drugs teratogenic, and more A little Again

caused radiation ionization. Until 70% of abnormalities are congenital, it turns out that can prevent or can give possible treatment save the life baby or reduce the severity of possible disability suffered with give proper therapy that is, with surgery. Whereas For prevention, in particular, is done before conception or during pregnancy age early.

Based on the background, the writer is interested in a report about type abnormality congenital in mothers who give birth to multiple disorders and polyhydramnios in suspected Edwards Syndrome at Arifin Achmad Hospital Pekanbaru for an objective report case. This is To enrich the repertoire of medical knowledge, especially in obstetrics and gynecology.

## METHODS

Type report case This namely the patient 43 years old with G4P3A0H3 gravid 39-40 weeks, yet imparts, ex 2 times section, polyhydramnios with fetus single live intrauterine presentation head with Susp. IUGR, Susp. Labiopalatoschisis came to VK RSUD Arifin Achmad Pekanbaru from Siak Hospital referral For planned elective SC surgery.

## RESULTS AND DISCUSSION

Patient 43 years old gravid 39-40 weeks, came to VK RSUD ARIFIN Achmad Pekanbaru from Siak Hospital referral with plan elective SC surgery. The patient previously consulted with a doctor and found the fetus's abnormality congenital. The patient was then referred to RSUD Arifin Achmad, which has NICU facilities.

Complaint painful waist spread to placenta (-), exit mucus mixed blood (-), water coming out of road born (-), out blood from road born (-). Motion fetus felt active (+). Patient confesses nine months pregnant, with HPHT 19/12/2021, TP 25/09/2022. Patients during This routine control pregnancy to the midwife one time and to the doctor content three times. No found history of disease past, history of disease family. The patient's history of SC is two times consecutive on the indication of fetal distress and history of the former section.

Vital signs and generalist status patient within normal limits. Position and presentation of fetus difficult Assess, genital examination within normal limits. On inspection, ultrasound found a description of polyhydramnios, with suspected IUGR and labiopalatoschisis. Inspection laboratory within normal limits



**Figure 1. Overview of Ultrasound Examination**



**Figure 2. Documentation Anomaly Congenital in Infants**

A patient diagnosed with G4P3A0H3 gravid 39-40 weeks, yet imparts BSC 2x, polyhydramnios + fetus single intrauterine life, presentation Chief, Susp. IUGR, Susp. Labiopalatoschisis. Done Elective SC management and Bilateral Pomeroy Tubectomy the next day.

With section cesarean, born life baby female, BBL 2100 grams, PB 47 cm, AS 7/9, Ballard Score 38-40 weeks. Found anomalies include atresia ani, micrognathia, bilateral labiopalatoschisis, ear location low, and rocker bottom foot. On the placenta, calcification of the maternal membranes and insertion rope center filamentous were found. The fetus suspected own Edward's Syndrome.



**Figure 3. Description of Calcification Placenta**

Growth Fetus Inhibited (PJT) inhibits oxygen and nutrient transfer through the placenta, hindering the fetus's growth. PJT can happen consequence of maternal factors, factor fetus, uterine factors, factor placenta, and combinations of some factors. Crisis chronic oxygen and nutrients can cause abnormalities in organ systems, so cause abnormality growth until death (James et al., 2010). in patients like this, we found PJT signs and some congenital abnormalities: atresia ani, micrognathia, bilateral labiopalatoschisis, low ear location, and rocker bottom foot. Besides abnormality, our anatomy also finds signs of calcification of the maternal membranes and insertion rope center filamentous. Findings This is suspected as Edwards syndrome.

Edwards syndrome is a bunch abnormality consequence of trisomy chromosome 18 (Edwards et al., 2013). Edwards syndrome occurs in 1:8600 births live, with a prevalence taller found in babies and women (2:1). Kindly special syndrome can cause disturbance neurological, skeletal, cardiovascular, genitourinary, and gastrointestinal; will but we do not find disturbance cardiovascular nor genitourinary

in the patient This (Appel et al., 2023)-syndrome prognosis This bad, with level safety One year only 5%. Most neonates die in the perinatal period, and only some can endure life for up to 6 months (Appel et al., 2023) (Cunningham et al., 2021) (Powell et al., 2013).

Because of the similar symptoms, the patient also allows diagnosed with Patau's syndrome (trisomy chromosome 13) (Taylor, 2013). Labiopalatoskisis, more often a syndrome found p or, which was also found in the patient. Confirmation of the diagnosis must be done by karyotyping. However No close possibility of the absence of abnormality chromosomes, so patient This will define as Abnormalities Congenital Multiple (Samosir et al., 2022).

Enhancement prevalence of Edwards syndrome concomitant with enhancement age mother. This may explain the incidence of Edwards syndrome in a patient. We do not find factor risk abnormality congenital in patients, but Mother is 43 years old: an age that is not productive For pregnancy. Considering the mother's age, supported by the consenting partner, and their satisfaction with the amount child, we do tubectomy. Tubectomy is also important For preventing the abnormality congenital Because the recurrence of Edwards syndrome is 0.5 – 1% (Appel et al., 2023).

Polyhydramnios defined with findings of amniotic fluid >2000 mL (Cunningham et al., 2021) (Appel et al., 2023) (Powell et al., 2013). Possible polyhydramnios detected clinically occurs in 1% to 3% of pregnancies. Polyhydramnios can result from obstetrics (TS, gestational diabetes), fetal anemia, disorders congenital fetus (system nerve, thoracic, or intestinal), and other complications. Pathophysiology happening polyhydramnios Not yet is known in a manner sure, will but suspected relate with deficit re-absorption and or production surplus amniotic fluid. In case this, we assume that Bilateral labiopalatoskisis of the fetus causes disturbance in reflex swallow, so failure re-absorption of temporary amniotic fluid continues formed. We decided To do an intervention nurse Because of the congenital abnormality (Dc, 2013) (Creasy & Resnik, 2014).

Calcification placenta is defined as crystal deposits of calcium hydroxyapatite in tissues vascular placenta (Mastrolia et al., 2016) (Wallingford et al., 2018). Calcification placenta is a normal process that starts at the age of pregnancy term (39.4-54%) will but can appear abnormally in preterm pregnancy (Mirza et al., 2018). We do not find factor other possible risks to explain findings of calcification placenta abnormally (cardiovascular disease, stressor, consumption of tobacco, or kidney disease) (Alemayehu & Bayile, 2020) (Mastrolia et al., 2016) (Wallingford et al., 2018). Nor proving findings formation calcification is before age 36 weeks pregnant. Because that is why we are assuming that findings of calcification placenta in case This No relate to findings of congenital abnormality (Wallingford et al., 2018).

Neonates moment This is treated in the NICU facility with tight supervision. Edwards syndrome can be detected antenatally via ultrasound examination in the laboratory. If the facility is sufficient, karyotyping and microassay examinations should also be offered. However, the second facility is Unavailable in our area, causing obstruction inspection. To confirm the diagnosis of Edwards syndrome.

## CONCLUSION

Abnormalities congenital are rare findings, and in this case, This gives a bad prognosis. However, the team guarantor answer ( doctor specialist obstetrician, doctor specialist child, and paramedics) must provide the best service for the mother and baby. Besides governance, medical, help psychology, and examination genetics too done To ensure holistic service.

## REFERENCES

- Alemayehu, T. M., & Bayile, Y. S. (2020). *Determinants of calcified placenta and its association with fetal outcome among mothers who gave birth in Southern Ethiopia, 2018*.
- Appel, R., Grush, A. E., Upadhyaya, R. M., Mann, D. G., & Buchanan, E. P. (2023). Ethical Implications of Cleft Lip and Palate Repair in Patients with Trisomy 13 and Trisomy 18. *The Cleft Palate Craniofacial Journal*, 10556656231163722. <https://doi.org/10.1177/1055665623116372>
- Creasy, R. K., & Resnik, R. (2014). *Creasy and Resnik's Maternal-fetal Medicine/ Maternal-fetal Medicine*. Elsevier Saunders.
- Cunningham, F. G., Leveno, K. J., Bloom, S. L., Dashe, J. S., Hoffman, B. L., Casey, B. M., & Spong, C. Y. (2021). *Obstetricia de Williams-25*. McGraw Hill Brasil.
- Dc, D. (2013). *Textbook of obstetrics*. Jaypee Brothers Medical Publishers (P) Ltd.
- Edwards, J. H., Harnden, D. G., Cameron, A. H., Crosse, V. M., & Wolf, O. H. (2013). A new trisomic syndrome. *The Lancet*, 275(7128), 787–790. [https://doi.org/10.1016/S0140-6736\(60\)90675-9](https://doi.org/10.1016/S0140-6736(60)90675-9)
- Fajrin, D. H., Dini, A. Y. R., Wulandari, E., Ermawati, I., Herman, S., Aritonang, T. R., Putri, D., Pelawi, A. M. P., Julianawati, T., & Nujulah, L. (2022). *Kelainan bawaan dan penyakit yang sering dialami bayi dan balita*. Rena Cipta Mandiri.
- James, D. K., Steer, P. J., Weiner, C. P., & Gonik, B. (2010). *High risk pregnancy e-book: Management options-expert consult*. Elsevier Health Sciences.
- Jatmiko, C. M. (2013). *Program Studi S1 Kebidanan Fakultas Kedokteran Universitas Brawijaya Malang*.
- Mastrolia, S. A., Weintraub, A. Y., Sciaky-Tamir, Y., Tirosh, D., Loverro, G., & HersHKovitz, R. (2016). Placental calcifications: a clue for the identification of high-risk fetuses in the low-risk pregnant population? *The Journal of Maternal-Fetal & Neonatal Medicine*, 29(6), 921–927.
- Mirza, F. G., Ghulmiyyah, L. M., Tamim, H., Makki, M., Jeha, D., & Nassar, A. (2018). To ignore or not to ignore placental calcifications on prenatal ultrasound: a systematic review and meta-analysis. *The Journal of Maternal-Fetal & Neonatal Medicine*, 31(6), 797–804.
- Powell, K. R., Kliegman, R. M., Stanton, B. F., Geme, J. W. S., Schor, N. F., & Behrman, R. E. (2011). Nelson textbook of pediatrics. *Sepsis and Shock*, 250, 747–751.
- Samosir, S. M., Rachmiawaty, A., Fatati, I., & Aziz, A. (2022). *Multiple Congenital Anomalies: Meningoencephalocele, Labiopalatoschisis and Clubfoot with Normal Chromosomal Analysis*.
- Simangunsong, D., & Atifah, Y. (2022). Analisis Penderita Polidaktili atau Kelainan Kongenital pada Jari (Review Artikel). *Prosiding Seminar Nasional Biologi*, 2(2), 883–888. <https://doi.org/10.24036/prosemnasbio/vol2/525>
- Taylor, A. I. (2013). Autosomal trisomy syndromes: a detailed study of 27 cases of Edwards' syndrome and 27 cases of Patau's syndrome. *Journal of Medical Genetics*, 5(3), 227. doi: 10.1136/jmg.5.3.227
- Wallingford, M. C., Benson, C., Chavkin, N. W., Chin, M. T., & Frasch, M. G. (2018). Placental vascular calcification and cardiovascular health: it is time to determine how much of maternal and offspring health is written in stone. *Frontiers in Physiology*, 9, 1044. <https://doi.org/10.3389/fphys.2018.01044>
- Yunani, Y., Bustami, A., & Febrianti, C. A. (2016). Faktor Kelainan Kongenital pada Bayi Baru Lahir di Ruang Perinatologi Rumah Sakit Abdul. *Jurnal Dunia Kesmas*, 5(2). <https://doi.org/10.33024/jdk.v5i2.460>



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