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Date: 07 January 2019

Sources Searched: Embase, Medline

Chorangioma of the Placenta

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1. Placental Pathology in Beckwith-Wiedemann Syndrome According to Genotype/Epigenotype Subgroups.

Author(s): Gaillot-Durand, Lucie; Brioude, Frederic; Beneteau, Claire; Le Breton, Frédérique; Massardier, Jerome; Michon, Lucas; Devouassoux-Shisheboran, Mojgan; Allias, Fabienne

Source: Fetal and pediatric pathology; Dec 2018; vol. 37 (no. 6); p. 387-399

Publication Date: Dec 2018

Publication Type(s): Journal Article

PubMedID: 30633605

Abstract:OBJECTIVE To evaluate the frequency of placental pathological lesions in Beckwith-Wiedemann syndrome (BWS), an overgrowth disorder that exhibits etiologic molecular heterogeneity and variable phenotypic expression. MATERIALS AND METHODS The study included 60 BWS patients with a proven molecular diagnosis and a placental pathological examination. Placentomegaly, placental mesenchymal dysplasia (PMD), chorangioma/chorangiomatosis, and extravillous trophoblastic (EVT) cytotomegaly were evaluated and their frequencies in the different molecular subgroups were compared. Immunohistochemistry and fluorescent in situ hybridization (FISH) were performed on EVT cytotomegaly. RESULTS Placentomegaly was found in 70.9% of cases, PMD in 21.7%, chorangioma/chorangiomatosis in 23.3%, and EVT cytotomegaly in 21.7%; there was no significant intergroup difference. EVT cytotomegaly showed loss of p57 expression, increased Ki67 proliferating index, and polyploidy on FISH analysis. CONCLUSION There was no genotype/epigenotype-phenotype correlation concerning placental lesions in BWS. Diffuse EVT cytotomegaly with polyploidy may represent a placental finding suggestive of BWS.

Database: Medline

2. Pregnancy complications and adverse outcomes in placental chorioangioma: a retrospective cohort analysis.

Author(s): Dong, Tian; Sher, Daniel; Luo, Qiong

Source: The journal of maternal-fetal & neonatal medicine : the official journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians; Nov 2018 ; p. 1-5

Publication Date: Nov 2018

Publication Type(s): Journal Article

PubMedID: 30431372

Abstract:OBJECTIVE To measure the relative risk of pregnancy complications and adverse outcomes in women with placental chorioangioma, and postnatal developmental deficiencies in their offspring. METHODS We designed a retrospective cohort study using records from 140,387 pregnancies at our hospital between 1 January, 2008 and 1 July, 2017. Follow-up of children in the placental chorioangioma group was conducted by phone interview. RESULTS Placental chorioangioma was diagnosed in 56 patients (incidence = 0.04%). Fifty-one cases were detected during routine prenatal ultrasound. Placental chorioangioma patients were at increased risk for fetal loss or induced abortion (RR = 9.93, 95% CI [4.66, 21.20]), preterm birth (n = 13, RR = 2.45, 95% CI [1.52, 3.95]), birth by cesarean section (n = 45, RR = 1.62, 95% CI [1.42, 1.84]), and polyhydramnios (n = 9, RR = 9.98, 95% CI [5.48, 18.18]), but not fetal distress (n = 5, RR = 0.49, 95% CI [0.22, 1.15]) or preeclampsia (n = 5, RR = 1.61, 95% CI [0.70, 3.73]), although there was an increased risk for preeclampsia after controlling for preterm birth (n = 3, RR = 3.6, 95% CI [1.33, 9.74]). No developmental complications were reported in offspring. CONCLUSION Placental chorioangioma increases the risk of fetal demise, pregnancy complications and adverse outcomes. In cases with mild complications or when early cesarean termination of pregnancy is feasible, the prognosis is excellent.

Database: Medline

3. Diagnosis, management and complications of large placental chorioangioma - A case series

Author(s): Down C.; Bills V.; Gradhand E.; Lee A.

Source: BJOG: An International Journal of Obstetrics and Gynaecology; Mar 2017; vol. 124 ; p. 41

Publication Date: Mar 2017

Publication Type(s): Conference Abstract

Available at [BJOG: An International Journal of Obstetrics and Gynaecology](#) - from Wiley Online Library Science , Technology and Medicine Collection 2017

Available at [BJOG: An International Journal of Obstetrics and Gynaecology](#) - from Unpaywall

Abstract:Background Chorioangiomas are benign hamartomas of the chorionic plate. Large tumours (>4 cm) are rare, but often associated with adverse perinatal outcome. We present three histologically confirmed cases, highlighting the different complications that can arise. Case Case 1: Ultrasound at 21 + 5 reveals a mildly dilated fetal heart, polyhydramnios (AFI 30 cm) and a vascular placental chorioangioma 80 x 50 x 75 mm. At 27 + 5 multiple infarcts are seen within the tumour and there is resolution of the polyhydramnios. The pregnancy progressed to term without further complication. Case 2: Severe polyhydramnios (AFI 40.6 cm) and a 40x38x38 mm placental chorioangioma are demonstrated on ultrasound at 28 + 0. Amnioreduction is performed, but spontaneous rupture of membranes and preterm delivery occurs at 31 + 5. Case 3: A 57 x 43 x 51 mm placental chorioangioma is noted incidentally on ultrasound at 32 + 4. The pregnancy progressed to term without complication. Histological examination demonstrated large areas of infarction. Conclusion Complications of large placental chorioangioma include polyhydramnios, preterm labour, fetal haemolytic anaemia, thrombocytopaenia, cardiomegaly, non-immune hydrops, growth restriction, pre-eclampsia and intra-uterine death. The pathophysiology is likely three-fold. (1) arteriovenous shunts causing vascular steal and transudative polyhydramnios (2) mass effect causing cord compression (3) consumptive coagulopathy with microangiopathic haemolysis. Prognosis of chorioangiomas are therefore related not only to size, but also vascularity. This is evident in the above case series, where tumour infarction is likely to have influenced outcome, leading to the spontaneous resolution of symptoms in one case, and no symptoms in another in spite of large tumour size. This knowledge could drive future therapies in the management of this condition.

Database: EMBASE



4. Clinical Outcome in Singleton and Multiple Pregnancies with Placental Chorangioma.

Author(s): Sirotkina, Meeli; Douroudis, Konstantinos; Papadogiannakis, Nikos; Westgren, Magnus

Source: PloS one; 2016; vol. 11 (no. 11); p. e0166562

Publication Date: 2016

Publication Type(s): Journal Article

PubMedID: 27835686

Available at [PloS one](#) - from Europe PubMed Central - Open Access

Abstract:INTRODUCTIONChorangiomas (CAs) are the most common non-trophoblastic tumor-like lesions of the placenta. Although the clinical significance of small CAs is unknown, the large lesions are often associated with maternal and fetal complications. The aim of our study was to assess the maternal clinical characteristics and neonatal outcome in singleton and multiple pregnancies with placental CA.MATERIALS AND METHODSAmong 15742 selected placentas 170 CAs were diagnosed. Pregnancy and neonatal outcomes were analyzed in singleton (n = 121) and multiple (n = 49) pregnancy groups including 121 and 100 neonates, respectively.RESULTSThe frequency of APGAR score <7 at 5 minutes (p = 0,012), abnormal pulsatility index (p = 0,034), and abnormal blood flow class (p = 0,011) were significantly higher in neonates from singleton compared to multiple pregnancies. Significantly smaller CAs in singleton pregnancies were related to small for gestational age neonates (p = 0,00040) and neonates admitted to the neonatal care unit (p = 0,028). In singleton pregnancies, significantly smaller CAs were associated to maternal preeclampsia (p = 0,039) and larger CAs to multiparity (p = 0,005) and smoking (p = 0,001) groups. The frequency of preeclampsia was high in both singleton and multiple pregnancy groups (41,32% vs 26,53%, respectively), however, the difference did not reach the level of statistical significance.DISCUSSIONA high incidence of preeclampsia in cohort of placental CA might lead to a possible recognition of CAs as potential morphologic indicator of placental hypoxia.CONCLUSIONA more favorable pregnancy outcome in multiple gestations compared to the singleton gestations with CAs might reflect an adaptive mechanism for increased demand of oxygen and associated placental tissue hypoxia in this group.

Database: Medline

5. Clinical analysis of 26 patients with histologically proven placental chorioangiomas.

Author(s): Wu, Zaigui; Hu, Wensheng

Source: European journal of obstetrics, gynecology, and reproductive biology; Apr 2016; vol. 199 ; p. 156-163

Publication Date: Apr 2016

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article

PubMedID: 26927893

Abstract:OBJECTIVEThe purpose of this study was to evaluate the clinical characteristics, imaging features, pregnancy complications, prenatal management of patients with placenta chorioangioma.METHODSThis was a retrospective study of 26 cases with histologically proven placenta chorioangima, in which the natural history, pregnancy complications, and clinical characteristics including ultrasonography were evaluated.RESULTSTwelve of the twenty-six cases had a wide range of maternal-fetal complications including polyhydramnios (7), fetal growth restriction (3), fetal distress (2), pre-eclampsia (3), fetal anemia-thrombocytopenia (2), congestive heart failure (1) and fetal abnormality (1).CONCLUSIONSPlacenta chorioangioma was associated with series of pregnancy complications such as polyhytramnios, premature delivery, maternal pre-eclampsia, fetal growth restriction, fetal distress, even fetal anemia and cardiomegaly. With regular prenatal examination, necessary treatment, and timely delivery, the majority had a good pregnancy outcome.

Database: Medline

6. Association of chorangiomas to hypoxia-related placental changes in singleton and multiple pregnancy placentas.

Author(s): Sirotkina, Meeli; Douroudis, Konstantinos; Westgren, Magnus; Papadogiannakis, Nikos

Source: Placenta; Mar 2016; vol. 39 ; p. 154-159

Publication Date: Mar 2016

Publication Type(s): Journal Article

PubMedID: 26992689

Abstract:INTRODUCTIONChorangiomas (CAs) are the most frequent non-trophoblastic tumor-like lesions of the placenta, and since they occur with an unusual frequency in pregnancies at high altitude, they are considered as a part of a spectrum of hypoxia-related vascular lesions of the placenta. The aim of our study is to describe the morphological features of the CAs and to show associations between CAs and other hypoxia related morphological changes in placentas of singleton and multiple pregnancies.MATERIALS AND METHODSPlacentas from singleton (121 vs 242) and multiple (49 vs 98) pregnancies, with and without CAs, respectively, were selected from a cohort of 15,742 placentas and enrolled into a case control study.RESULTSSingleton placentas with CAs showed increased incidence of hypoxia-related placental changes including accelerated maturation of chorionic villi (OR = 2.40, $p < 0.001$), infarction (OR = 2.89, $p < 0.001$), decidual arteriopathy (OR = 3.24, $p < 0.001$), fetal thrombosis (OR = 4.05, $p < 0.001$) and hypercoiled umbilical cords (OR = 5.55, $p < 0.001$). The incidence of CAs in multiple placentas was higher in our studied cohort and a significant associated change was shown with fetal thrombosis (OR = 4.58, $p = 0.017$). There were no significant morphological changes between CAs in singleton compared to multiple pregnancies.DISCUSSIONIn singleton placentas, CA is associated with several placental changes related to hypoxia, whereas in multiple pregnancies this relationship is not present. We speculate that CAs in multiple pregnancies might reflect an adaptive mechanism for relative hypoxia per se in these pregnancies.CONCLUSIONOur study provides evidence that CAs are associated with an increased rate of hypoxia related changes in singleton placentas.

Database: Medline

7. Chorangoendothelioma of the placenta: A myth or reality?

Author(s): Jaiman S.; Fernandez E.; Gundabattula S.R.

Source: Pediatric and Developmental Pathology; 2015; vol. 18 (no. 5); p. 410-415

Publication Date: 2015

Publication Type(s): Article

PubMedID: 25906437

Available at [Pediatric and developmental pathology : the official journal of the Society for Pediatric Pathology and the Paediatric Pathology Society](#) - from ProQuest (Health Research Premium) - NHS Version

Abstract:Chorangiomas of the placenta are often discovered incidentally and, although they are not common (1 in 9000 to 1 in 50 000 placentas), these tumors may be found in 0.5% to 1% of carefully examined placentas. The vast majority are of no clinical importance and complications are seen only in association with tumors measuring more than 4 cm in diameter. In contrast, hemangioendotheliomas are vascular tumors with varying grades of malignant potential and hardly ever involve the placenta. Here we describe a large placental chorangioma causing fetal hydrops and demonstrating distinctive intravascular luminal endothelial proliferation and tufting. To the best of our knowledge, this is probably only the second case of a placental hemangioendothelioma reported in the literature. Copyright © 2015 Society for Pediatric Pathology.

Database: EMBASE



8. Case study: A rare case of placental chorioangioma and literature review

Author(s): Thirunavukarasu A.; Huang Y.-T.; Alahakoon I.

Source: Journal of Obstetrics and Gynaecology Research; Oct 2015; vol. 41 ; p. 140-141

Publication Date: Oct 2015

Publication Type(s): Conference Abstract

Available at [Journal of Obstetrics and Gynaecology Research](#) - from Wiley Online Library Science , Technology and Medicine Collection 2017

Available at [Journal of Obstetrics and Gynaecology Research](#) - from Unpaywall

Abstract:Background: A case study of a pregnancy complicated by multiple chorioangiomas will be demonstrated together with images of placental histopathology and ultrasound images. A review of the current available literature on prenatal diagnosis and management of placental chorioangioma will also be conducted. Case Description: We illustrate a 22-year-old Lebanese primigravida transferred to tertiary obstetric unit at 33 weeks and 2 days gestation with intrauterine fetal growth restriction with estimated fetal growth of 1560 g at 32 + 5 weeks. This is on a background of newly diagnosed multiple placental chorioangiomas and gestational hypertension. She was given two doses of betamethasone 24 hours apart prior to the transfer. The patient was admitted and monitored closely with weekly ultrasound and daily CTT assessment. At 33+5 weeks, ultrasound examination showed no interval fetal growth (EFW 1562 g) and an umbilical artery S/D ratio of 3.2. A 1655 g preterm female newborn was delivered by emergency Caesarean section at 34 + 3 weeks with Apgars of 8 at 1 minute and 9 at 5 minutes and was admitted to neonatal intensive care unit. Conclusion: We report multiple placental choriangiomas with the largest measuring 7 cm x 4 cm complicated by gestational hypertension, severe fetal intrauterine growth restriction, borderline raised Doppler studies and preterm birth. Large placental chorioangiomas (>5 cm) occur in one in 9000 to one in 50000 pregnancies[1]. It is associated with serious pregnancy complications such as polyhydramnios, fetal anemia (secondary to hemolysis or arteriovenous shunting), hydrops, fetal growth restriction, preterm delivery and fetal death. Management requires careful monitoring of the fetus with daily CTTs, weekly Dopplers and fortnightly estimated fetal weights. There are limited studies to guide the most appropriate course of action in most cases. We recommend delivery should be considered if suspected fetal compromise, with attention given to gestational age, fetal lung maturity, maternal co-morbidities and local neonatal facilities[2].

Database: EMBASE

9. Chorangiomas: Evaluation of a placental vascular lesion and related clinical effects.

Author(s): Momeni Boroujeni, Amir; Yousefi, Elham; Vincent, Miriam T; Anderson, Virginia

Source: Fetal and pediatric pathology; 2014; vol. 33 (no. 5-6); p. 331-338

Publication Date: 2014

Publication Type(s): Journal Article

PubMedID: 25406659

Abstract:BACKGROUNDChorangiomas is a unique placental vascular abnormality that can cause growth retardation and even fetal demise in severe cases. In this study we aim to better understand this lesion and the possible clinical implications.METHODS AND MATERIALSIn this study 170 placentas were evaluated, both grossly and microscopically. The patients' charts were reviewed and

relevant clinical data were extracted. In the histological examination, presence of placental lesions including chorangiomatosis (focal, multifocal and diffuse) and chorangiosis was determined and possible correlation between placental findings and clinical outcomes investigated. RESULTS Among the 170 placentas examined, 42 cases of multifocal chorangiomatosis (25.6%), 7 cases with diffuse chorangiomatosis (4.26%), and 56 cases of focal chorangiomatosis (34.1%) were identified. We found that there is a significant correlation between multifocal/diffuse chorangiomatosis and adverse clinical outcomes including lower birth weight and NICU admission. CONCLUSION Chorangiomatosis can significantly affect the outcomes of pregnancy and more research is needed to better understand this lesion.

Database: Medline

10. Placenta chorioangioma: a rare case and systematic review of literature.

Author(s): Al Wattar, Bassel H; Hillman, Sarah C; Marton, Tamas; Foster, Katharine; Kilby, Mark D

Source: The journal of maternal-fetal & neonatal medicine : the official journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians; Jul 2014; vol. 27 (no. 10); p. 1055-1063

Publication Date: Jul 2014

Publication Type(s): Case Reports Journal Article Review Systematic Review

PubMedID: 24460422

Abstract: OBJECTIVES Placental chorioangioma is a relatively rare condition that often results in serious prenatal complications and adverse pregnancy outcome. We report a case of a large chorioangioma that was prenatally diagnosed at 23 weeks with polyhydramnios and fetal anemia. With prenatal monitoring, transplacental therapy with a COX-2 inhibitor and intrauterine transfusion, the pregnancy resulted in the live birth at 30 weeks. Due to the paucity of evidence relating to the management protocols in cases of placental chorioangiomas, we have conducted a systematic review of the literature. METHODS All reported cases in the English language were captured using the electronic databases. Bibliographies of relevant articles were manually searched. RESULTS Sixty-four articles were included reporting 112 cases of placental chorioangioma. In 79, there was no prenatal treatment and in 33 there was in-utero treatment. A systematic

comparison of antenatal complications and pregnancy outcomes was performed. No strong conclusion could be made due to the low number and quality of the reported cases. CONCLUSION Placenta chorioangioma represents a challenge with its potentially serious complications adversely affecting pregnancy outcome. An international registry of pregnancies with this rare complication and documentation of pregnancy outcomes will improve the evidence base for prospective management.

Database: Medline

11. Antenatal diagnosis of placental chorangioma: Implications for clinical management

Author(s): Higgins M.; Ryan G.

Source: Archives of Disease in Childhood: Fetal and Neonatal Edition; Jun 2014; vol. 99

Publication Date: Jun 2014

Publication Type(s): Conference Abstract

Available at [Archives of Disease in Childhood: Fetal and Neonatal Edition](#) - from BMJ Journals - NHS

Abstract: Introduction Chorangiomas (placental haemangiomas) are rarely diagnosed antenatally but have been associated with cardiac failure and poor outcome. The aim of this study was to review cases of antenatally diagnosed placental chorangiomas within in a large tertiary level unit. Methods Retrospective cohort study Results Between January 2004 and March 2013, over 67,000 infants delivered in Mount Sinai, of which seven had an antenatal diagnosis of chorangioma. None of the pregnancies had a raised serum AFP. Three cases were diagnosed at the time of the routine anatomy ultrasound, and the remaining four cases were diagnosed between 22 and 26 weeks gestation. The chorangiomas ranged in size from "multiple small lesions" to large (10 x 8 cm). One case with a large chorangioma, scalp oedema and cardiomegaly presented initially with preterm rupture of membranes. Following discussion with the parents the fetus underwent fetal blood sampling (Hb 83g/l) and intrauterine transfusion. Five minutes following the procedure the infant became bradycardiac, and was delivered by emergency caesarean section at 29 weeks gestation, but died in the resuscitation room. Six other pregnancies were monitored closely but all delivered uneventfully. One large chorangioma (7 x 5 cm) occurred near the cord root of twin A of a DCDA twin pregnancy; both infants delivered at 36 weeks gestation. Two cases returned to their referring hospital for delivery after intense monitoring. Conclusion Placental chorangioma is an uncommon antenatal diagnosis and can largely be managed with a conservatively, though recourse to laser ablation of feeding vessels or fetal blood sampling may be required.

Database: EMBASE

12. Placental chorioangioma: literature review.

Author(s): Fan, Miaoying; Skupski, Daniel W

Source: Journal of perinatal medicine; May 2014; vol. 42 (no. 3); p. 273-279

Publication Date: May 2014

Publication Type(s): Journal Article Review

PubMedID: 24334427

Abstract: Placental chorioangioma is the most common benign non-trophoblastic tumor of the placenta. It is derived from primitive chorionic mesenchyme and is typically vascular. Placenta chorioangiomas occur in approximately 1% of pregnancies. Most placental chorioangiomas are small and are not clinically important. However, those measuring more than 4-5 cm in diameter may be associated with maternal and fetal complications. Early diagnosis, close prenatal surveillance and appropriate intervention may prevent severe complications and perinatal mortality caused by chorioangioma. Here we review the incidence, prenatal diagnosis, complications, the pathophysiological mechanisms of maternal and fetal complications, and the therapeutic possibilities in pregnancies complicated by placental chorioangiomas.

Database: Medline

13. Natural history and pregnancy outcome in patients with placental chorioangioma.

Author(s): Liu, Haiyan; Gu, Weirong; Li, Xiaotian

Source: Journal of clinical ultrasound : JCU; Feb 2014; vol. 42 (no. 2); p. 74-80

Publication Date: Feb 2014

Publication Type(s): Journal Article

PubMedID: 24132889

Available at [Journal of clinical ultrasound : JCU](#) - from Wiley Online Library Science , Technology and Medicine Collection 2017

Abstract: **PURPOSE** To evaluate the natural history and outcome of pregnancies in patients with placental chorioangioma. **METHODS** A total of 16 placentas with a histologic diagnosis of chorioangioma were identified, and the natural history and outcome of pregnancy were evaluated. This study was approved by the Institutional Ethics Committees of our unit, and written informed consent was obtained from all study participants. **RESULTS** Thirteen of the 16 cases were associated with a wide variety of fetal complications. Two-thirds of the cases developed complications that either required elective delivery because of fetal distress (n = 4), fetal heart failure (n = 1), oligohydramnion (n = 1), and premature labor of dichorionic twins (n = 1) or resulted in intrauterine fetal death and termination of pregnancy (n = 2). **CONCLUSIONS** Placental chorioangioma was associated with the development of polyhydramnios, fetal growth restriction, and fetal distress in a significant number of cases. The size, vascularity, and location of the chorioangioma may be three independent factors of maternal and fetal complications. Any of these three factors can influence the outcome of pregnancy. Close antenatal examination should be routinely practiced to allow the timely diagnosis of early fetal heart failure.

Database: Medline

14. Pregnancy with concomitant chorioangioma and placental mesenchymal dysplasia: a rare placental abnormality.

Author(s): Qichang, Wu; Wenbo, Wang; Liangkai, Zheng; Hui, Kong; Xiaoqin, He; Li, Sun; Yasong, Xu

Source: Case reports in obstetrics and gynecology; 2013; vol. 2013 ; p. 591956

Publication Date: 2013

Publication Type(s): Journal Article

PubMedID: 23840989

Available at [Case reports in obstetrics and gynecology](#) - from Europe PubMed Central - Open Access

Abstract:Background. Pregnancy with concomitant chorioangioma and placental mesenchymal dysplasia (PMD) coexisting with a normal viable fetus is very rare. The literature was reviewed to explore the incidence and genetic origin of this condition. Case. The case was first identified by prenatal ultrasonography, but the prenatal diagnosis only included chorioangioma. PMD was then confirmed during postnatal evaluation, which included gross and histologic examination of the placenta. The macroscopic and microscopic findings were consistent with concomitant chorioangioma and placental mesenchymal dysplasia during pregnancy. Genetic findings confirmed genetic similarity of the chorioangioma and vesicle-like villi with the fetus. Conclusions. The case represents a rare placental abnormality whose pathogenesis and molecular basis need further research. Detailed histologic and genetic analyses are essential for accurate and differential diagnosis.

Database: Medline

15. Particularities of pathological changes in placenta in patients with rheumatic mitral valvulopathy

Author(s): Serbenko A.; Stepan B.; Sinitsina L.

Source: Journal of Perinatal Medicine; Jun 2013; vol. 41

Publication Date: Jun 2013

Publication Type(s): Conference Abstract

Abstract:Introduction. Rheumatic mitral valvulopathy in pregnant women is a severe disease of the cardiovascular system, with negative impact on intrauterine development of the fetus. Placenta, the key organ that regulates fetal-maternal metabolism, supports changes under the influence of various forms of homeostasis disorders in pregnant women, including those circulatory. In this context, the actuality of the research on structural and tissue changes in placentas of patients with rheumatic mitral valvulopathy is undeniable. Materials and methods. During morpho-pathological research there were studied placentas from patients with rheumatic mitral valvulopathy (n=27) and placentas from healthy pregnant women (n=8), the last being the control group. Classical methods of morpho-pathological investigation and common stains with hematoxylin-eosin and van Gieson picrofuxin were used. Statistical processing was performed using STATISTICA 7.0 package, StatSoft Inc (USA) (2006). Results. Histopathological study determined various lesion and compensatory-adaptive changes of diverse intensity in studied placentas. Basal membrane looked narrowed, often with inflammatory infiltration; the latter usually was of lymphoid or sometimes of moderated lymphocyte-granulocyte character spreading towards adjacent villi as anchor like villous. Also in basal membrane dystrophic changes of deciduous cites and adjacent substances of diverse degrees of intensity were detected. In vilar chorion the hypo- or chorionic vascularized villi could be revealed, in vascular network sometimes organized hyaline thrombi could be found. Among detected histopathological lesions there were found dysplastic changes, manifested by the presence of villi with monstrous branches in placentas from births at term, which could be accompanied by calcification in the outbreak, and sometimes they trained vascular network of placental chorion. The research has detected manifestations of the vilar chorion maturation dischronism in placentas from births at term revealed by the presence of immature villi, sometimes of embryonic type. An important group of observed changes are morphological changes characteristic for acute and

chronic circulatory disorders. The most common changes are attested varicose dilatation of spiral vessels, myocardial ischemia, thrombosis of intervilar space, presence of non-functional areas accompanied by fibrinoid deposits in intervilar area, micro take off of early placenta manifested by epididucal micro hematoma with moderate compression and slight disjunction of basement membrane. Also there could be revealed sclerosis processes of vilar stroma and vascular changes, the latter being manifested by hypertrophic stenotic idiopathic neuropathy. A common enough phenomenon revealed in our research was the compensatory change of structural placenta elements, such as compensatory proliferation syncytia, angiectasia of venous network and collateral capillary development, compensatory angiomatosis, the last often being accompanied by the phenomenon of migration to the periphery of vilar vessels. According to the comparative analysis the inflammatory processes were certified with an incidence of $0,29 \pm 0,01$, circulatory disorders of diverse degrees of intensity constituted $0,5 \pm 0,1$, maturation dischronism of vilar chorion - $0,4 \pm 0,1$, and compensatory-adaptive changes were $0,77 \pm 0,1$, with statistical difference compared with control group ($p < 0,05$). Discussion/Conclusion. In the structure of detected pathological changes the most significant are circulatory disorders and maturation dischronism, which usually determines the development of fetal-placental insufficiency. Thus, the rheumatic mitral valvulopathy is responsible for the risk of developing intrauterine fetal distress caused by placental insufficiency subject to acute and chronic circulatory disorders, and disorders of maturation of vilar chorion.

Database: EMBASE

16. Chorangiocarcinoma of the placenta: a case report and clinical review.

Author(s): Faes, T; Pecceu, A; Van Calenbergh, S; Moerman, P

Source: Placenta; Aug 2012; vol. 33 (no. 8); p. 658-661

Publication Date: Aug 2012

Publication Type(s): Case Reports Journal Article Review

PubMedID: 22632806

Abstract:OBJECTIVE We describe a case of chorangiocarcinoma, a complex lesion consisting of a trophoblastic proliferation within a chorangioma, presenting in a term placenta. MATERIALS AND METHOD The lesion was diagnosed by ultrasound at a second trimester check-up after amniocentesis, performed because of increased combined risk at first trimester screening for trisomy 21. After uncomplicated vaginal delivery, a healthy child was born and the placenta was expelled spontaneously. RESULT Gross examination of the placenta showed a well-demarcated mass, bulging paracentrally from the fetal surface. Histology revealed a trophoblastic proliferation inside a chorangioma, consisting of multiple nodules with characters of focal multinucleation and pleomorphic cell nuclei, extensive central necrosis and high mitotic activity. Immunohistochemical staining showed strong intensity for hCG; Ki-67 (MIB-1) demonstrated a high proliferation index. Histopathological and immunohistochemical profile was compatible with a malignant trophoblastic proliferation. CONCLUSION This is only the fifth reported case of so-called "chorangiocarcinoma" of the placenta (Table 1). However, histopathologically only one reported case was identical to ours. A proliferation of atypical trophoblast was observed inside a chorangioma, which formed as it were a shield around the trophoblast. No extravascular stromal invasion was present. Follow-up revealed no metastases, either in the mother or the child, up to 3 months after birth.

Database: Medline



17. Aberrant methylation of H19-DMR acquired after implantation was dissimilar in soma versus placenta of patients with Beckwith-Wiedemann syndrome.

Author(s): Higashimoto, Ken; Nakabayashi, Kazuhiko; Yatsuki, Hitomi; Yoshinaga, Hokuto; Jozaki, Kosuke; Okada, Junichiro; Watanabe, Yoriko; Aoki, Aiko; Shiozaki, Arihiro; Saito, Shigeru; Koide, Kayoko; Mukai, Tsunehiro; Hata, Kenichiro; Soejima, Hidenobu

Source: American journal of medical genetics. Part A; Jul 2012; vol. 158

Publication Date: Jul 2012

Publication Type(s): Research Support, Non-u.s. Gov't Case Reports Journal Article

PubMedID: 22577095

Available at [American journal of medical genetics. Part A](#) - from Wiley Online Library Science , Technology and Medicine Collection 2017

Abstract: Gain of methylation (GOM) at the H19-differentially methylated region (H19-DMR) is one of several causative alterations in Beckwith-Wiedemann syndrome (BWS), an imprinting-related disorder. In most patients with epigenetic changes at H19-DMR, the timing of and mechanism mediating GOM is unknown. To clarify this, we analyzed methylation at the imprinting control regions of somatic tissues and the placenta from two unrelated, naturally conceived patients with sporadic BWS. Maternal H19-DMR was abnormally and variably hypermethylated in both patients, indicating epigenetic mosaicism. Aberrant methylation levels were consistently lower in placenta than in blood and skin. Mosaic and discordant methylation strongly suggested that aberrant hypermethylation occurred after implantation, when genome-wide de novo methylation normally occurs. We expect aberrant de novo hypermethylation of H19-DMR happens to a greater extent in embryos than in placentas, as this is normally the case for de novo methylation. In addition, of 16 primary imprinted DMRs analyzed, only H19-DMR was aberrantly methylated, except for NNAT DMR in the placental chorangioma of Patient 2. To our knowledge, these are the first data suggesting when GOM of H19-DMR occurs.

Database: Medline

18. Beckwith-Wiedemann syndrome with placental chorangioma due to H19-differentially methylated region hypermethylation: a case report.

Author(s): Aoki, Aiko; Shiozaki, Arihiro; Sameshima, Azusa; Higashimoto, Ken; Soejima, Hidenobu; Saito, Shigeru

Source: The journal of obstetrics and gynaecology research; Dec 2011; vol. 37 (no. 12); p. 1872-1876

Publication Date: Dec 2011

Publication Type(s): Case Reports Journal Article

PubMedID: 21955307

Available at [The journal of obstetrics and gynaecology research](#) - from Wiley Online Library Science , Technology and Medicine Collection 2017

Abstract: Beckwith-Wiedemann syndrome (BWS) is a common overgrowth syndrome that involves abdominal wall defects, macroglossia, and gigantism. It is sometimes complicated by placental tumor and polyhydramnios. We report a case of BWS, prenatally diagnosed with ultrasonography. A large and well-circumscribed tumor also existed on the fetal surface of the placenta, which was histologically diagnosed as chorangioma after delivery. Polyhydramnios was obvious and the fetal heart enlarged progressively during pregnancy. Because the biophysical profiling score dropped to 4 points at 33 weeks of gestation, we carried out cesarean section. By epigenetic analysis, H19-differentially methylated region hypermethylation was observed in the placental tumor, normal placental tissue, and cord blood mononuclear cells. This is the first report of BWS with placental tumor due to H19-differentially methylated region hypermethylation.

Database: Medline

19. Chorangioma and related vascular lesions of the placenta--a review.

Author(s): Amer, Hoda Zeinab M; Heller, Debra S

Source: Fetal and pediatric pathology; 2010; vol. 29 (no. 4); p. 199-206

Publication Date: 2010

Publication Type(s): Journal Article Review

PubMedID: 20594143

Abstract: Chorangioma has been referred to as a hamartoma-like, or a hyperplastic capillary lesion, rather than a true neoplasm. Its incidence is 1 in 100 placentas. In chorangiomas larger than 4 cm, there can be significant effects on the hemodynamic and circulatory processes of the fetus, leading to grave clinical consequences, such as polyhydramnios and fetal heart failure. Chorangiomas can show various histopathologic pictures, ranging from vascular to cellular, and can undergo degenerative changes. They can be diagnosed prenatally by ultrasound, color Doppler imaging, and magnetic resonance imaging (MRI). Chorangioma must be differentiated from other villous capillary lesions, namely, chorangiomatosis and chorangiosis. They have overlapping similarities with chorangioma, and have clinical implications. Chorangiomatosis has been associated with negative fetal outcomes such as intrauterine growth retardation (IUGR) and preeclampsia. Chorangiosis is associated with maternal diabetes mellitus. Another rarer differential is chorangioma with trophoblast proliferation ("chorangiocarcinoma," a probable misnomer), a rare proliferation of trophoblastic tissue seen in the vicinity of otherwise benign chorangioma. Treatment modalities of chorangioma include endoscopic devascularization, alcoholic ablation, and interstitial laser coagulation. In this article, we will review the clinical and pathologic picture of chorangioma as well as treatment, and discuss its main differentials.

Database: Medline

20. Chorangioma placentae.

Author(s): Lež, Cvjetko; Fures, Rajko; Hrgovic, Zlatko; Belina, Stanko; Fajdic, Josip; Münstedt, Karsten

Source: Rare tumors; Dec 2010; vol. 2 (no. 4); p. e67

Publication Date: Dec 2010

Publication Type(s): Case Reports

PubMedID: 21234259

Available at [Rare tumors](#) - from Europe PubMed Central - Open Access

Abstract:Chorangioma of the placenta is a rare tumor with a frequency of about 1%, which usually presents as a solitary nodule or, less frequently, as multiple nodules. It is found on the fetal surface of the placenta or in placental parenchyma. Most chorangiomas are small and possess no clinical significance. On the contrary, clinically significant chorangiomas, greater than 5 cm or multiple, may be associated with pregnancy complications. The case presented is one of the uncommon presentations of chorangioma, in which its presence and size were not related to a pregnancy disorders or developmental anomalies of the fetus.

Database: Medline

21. Clinically diagnosed beckwith-wiedemann syndrome with massive placental cholangioma: A case report

Author(s): Aoki A.; Shiozaki A.; Samashima A.; Yoneda N.; Yamanaka M.; Yoneda S.; Saito S.; Watanabe Y.; Yoshida T.; Higashimoto K.; Soejima H.

Source: Placenta; Sep 2010; vol. 31 (no. 9)

Publication Date: Sep 2010

Publication Type(s): Conference Abstract

Abstract:Placental chorangioma is a most common benign tumor. Small lesion in diameter is usually asymptomatic, but larger tumor (>50mm) and numerous lesions are associated with cardiac failure, polyhydramnios, fetal hydrops, fetal thrombocytopenia, and anemia. We report a case of clinically diagnosed Beckwith-Wiedemann Syndrome with massive placental chorangioma. A 25-year-old woman was transferred to our hospital with diagnosis of hydroamnios and preterm labor at 29wks 3days of gestation. The fetus was large-for-gestational age of 2016g (+3.6SD) and also had large tongue, kidneys, and liver. A massive placental tumor measured 97x58mm was detected on the surface. We administered ritodrine hydrochloride and MgSO₄ and eliminated amniotic fluid 3 times to prevent premature rupture of the membranes. Although a fetal cardiac failure was not obvious on admission, it was progressive after 32wks of gestation. At 33wks 5days of gestation biophysical profiling score was dropped to 4 points and we performed cesarean section. The infant was heavy-for-gestational age weighing 2,540g. Apgar score was 3 and 7 at 1 and 5 minutes, respectively. The infant showed neonatal anemia, thrombocytopenia, and prolonged hypoglycemia. Placental examination revealed a heavy placenta (1,620g) with solid and well-circumscribed tumor (cholangioma) on the fetal side. The cardiac hypertrophy of the baby was progressive and the baby

died of cardiac shock 64 days after delivery. We should be careful about a progressive cardiac failure of the fetus when there is massive placental tumor with enlarged vessels.

Database: EMBASE

22. Normal neonatal outcome in a Chinese woman with pemphigoid gestationis, Graves' disease, and history of placental chorioangioma.

Author(s): Hon, Kam-Lun Ellis; Chiu, Lai-Shan Mona; Lam, Man-Ching Adrian; Choi, Cheung-Lung Paul; Chan, Shirley; Luk, Nai-Ming

Source: International journal of dermatology; Sep 2007; vol. 46 (no. 9); p. 996-997

Publication Date: Sep 2007

Publication Type(s): Letter Case Reports

PubMedID: 17822510

Available at [International journal of dermatology](#) - from Wiley Online Library Science , Technology and Medicine Collection 2017

Database: Medline

23. Clinico-pathological profile of 12 cases of chorangiosis.

Author(s): Gupta, Ruchika; Nigam, Sonu; Arora, Prerna; Khurana, Nita; Batra, Swaraj; Mandal, Ashish Kumar

Source: Archives of gynecology and obstetrics; Apr 2006; vol. 274 (no. 1); p. 50-53

Publication Date: Apr 2006

Publication Type(s): Case Reports Journal Article

PubMedID: 16208478

Available at [Archives of gynecology and obstetrics](#) - from SpringerLink

Abstract:Chorangiosis is one of the vascular lesions that involves terminal chorionic villi. It is commonly associated with various fetomaternal conditions like pre-eclampsia, diabetes etc. However, the clinical significance of this pathological finding has not been studied extensively. The aim of this study was to identify the various conditions associated with chorangiosis and to determine its clinical significance. A retrospective study to identify the cases of placentas diagnosed with chorangiosis was carried out and the clinical and morphological details of these cases were reviewed. Immunostaining for CD34 and muscle-specific actin was also performed to confirm chorangiosis and to exclude chorangiomatosis. A total of 12 cases of chorangiosis were retrieved, most of them were of term gestation. Five of these 12 cases were associated with various maternal conditions including syphilis (2 cases) and single cases of pre-eclampsia, diabetes and jaundice. One case in each had abruptio placenta and non-immune hydrops. Of these 12 cases, seven were stillborn. Microscopically, all 12 cases showed extensive chorangiosis involving terminal villi. In addition, two cases showed focal infarction and one had extensive calcification. Immunostaining for CD34 confirmed increased number of capillaries while muscle-specific actin was negative, excluding

chorangiomatosis. The clinico-pathological profile presented in this study suggests that chorangiosis has characteristic pathological features for its recognition and needs to be differentiated from similar conditions like chorangioma and chorangiomatosis. Also, chorangiosis has potential clinical significance and should be mentioned in the pathology report and the patient should be investigated for associated conditions like syphilis, pre-eclampsia, diabetes etc.

Database: Medline

24. Chorioangioma--new insights into a well-known problem. I. Results of a clinical and morphological study of 136 cases.

Author(s): Guschmann, Michael; Henrich, Wolfgang; Entezami, Michael; Dudenhausen, Joachim W

Source: Journal of perinatal medicine; 2003; vol. 31 (no. 2); p. 163-169

Publication Date: 2003

Publication Type(s): Journal Article

PubMedID: 12747233

Abstract:AIMSChorioangiomas are rare hamartomatous lesions. Possible correlations between their occurrence and the progression of a pregnancy have been objects of discussions for quite some time.METHODSIn a retrospective study 22439 unselected placentas were examined for incidences of chorioangiomas, morphological features and accompanying clinical characteristics.RESULTSChorioangiomas occur in 0.61% of pregnancies, they are mainly microscopically small, and 55% of them are localized subchorial. The rate of their occurrence rises almost linearly with maternal age; chorioangiomas are found most often in women who are over 30 years old. Hypertension and diabetes are found more often in combination with chorioangiomas than they are in otherwise normal pregnancies. In 72% of all cases girls were born; in 33% we also observed malfunctions in the maturation processes of the placental parenchyma, in particular arrested and delayed maturation of the villi. Premature births occur approximately three times more often in chorioangioma pregnancies than in normal ones. Chorioangiomas are often found in primipara and twin pregnancies.

Database: Medline

25. Chorioangiomas--new insights into a well-known problem. II. An immuno-histochemical investigation of 136 cases.

Author(s): Guschmann, Michael; Henrich, Wolfgang; Dudenhausen, Joachim W

Source: Journal of perinatal medicine; 2003; vol. 31 (no. 2); p. 170-175

Publication Date: 2003

Publication Type(s): Journal Article

PubMedID: 12747234

Abstract:AIMSChorioangiomas are benign tumors of the hemochorial placenta. They are malformations or hamartomas, formed as a result of defective angiogenesis. They are of clinical importance due to their association with premature placental release and pre-eclampsia.METHODSSince a link has been established in neoplasias between tumor growth and an

increased expression of angiogenic growth factors, 136 samples of chorioangiomas and 136 samples of tumor-free placental tissue were examined in terms of proliferation rate and expression of the growth factors angiopoietin-1 and -2, the angiopoietin-receptor Tie-2, PDGF and the PDGF beta-receptor. **RESULTS** The chorioangiomas exhibited differing proliferation rates, whereas tumor-free placental tissue barely proliferated at all. Angiopoietin expression was--morphologically--considerably higher within the chorioangiomas than in the comparison placentas; morphological amounts of the Tie-2 receptor were identical in all samples. Expression of PDGF and its receptor was the same for chorioangiomas and tumor-free placentas. **CONCLUSIONS** According to this study and the current literature in the field of hamartomas and some neoplasia, we can assume that increased growth factor expression plays a role in the formation of chorioangiomas, since it stimulates proliferation in a wide variety of cell compartments.

Database: Medline

26. Perinatal outcome after prenatal diagnosis of placental chorioangioma

Author(s): Sepulveda W.; Alcalde J.L.; Schnapp C.; Bravo M.

Source: Obstetrics and Gynecology; Nov 2003; vol. 102 (no. 5); p. 1028-1033

Publication Date: Nov 2003

Publication Type(s): Review

PubMedID: 14672481

Available at [Obstetrics and Gynecology](#) - from Ovid (LWW Total Access Collection 2015 - Q1 with Neurology)

Abstract: **OBJECTIVE:** To review the prenatal complications, management, and perinatal outcome in pregnancies complicated by placental chorioangioma. **METHODS:** Cases of placental chorioangioma diagnosed prenatally as part of a prospective, multicentric program for fetal diagnosis and therapy were identified. All cases were evaluated with color flow imaging. In the latter part of the study, three-dimensional power Doppler angiography was also used to study the vascular pattern of the tumor. Information on maternal demographics, prenatal sonographic findings, pregnancy complications, antenatal intervention, and perinatal outcome was obtained by reviewing the medical records or contacting the referring obstetricians. **RESULTS:** In the 5-year period from January 1997 to December 2001, 11 cases of placental chorioangioma were diagnosed prenatally. Nine cases were diagnosed in singleton and two in twin pregnancies. Among the nine cases occurring in singletons, five (56%) were associated with pregnancy complications, including polyhydramnios (n = 3), oligohydramnios (n = 2), fetal growth restriction (n = 2), and nonimmune hydrops (n = 1). Amniodrainage was required in one of these cases, allowing prolongation of pregnancy until term. Four (44%) singletons delivered before 35 weeks. Overall, two fetuses died, including one twin due to complications of twin-twin transfusion syndrome and another with hydrops after alcohol injection into the chorioangioma. In four pregnancies, no prenatal complications were detected in spite of continuous growth and vascularity of the placental mass in three of them. **CONCLUSION:** Placental chorioangioma is associated with an increased risk of pregnancy complications, the most common being polyhydramnios and preterm delivery. In selected cases, amniodrainage allows continuation of the pregnancy with improving perinatal outcome. Fetuses who develop hydrops are at the highest risk for perinatal death, with limited therapeutic options being available. Close follow-up is advised, even in those cases with no associated findings at the time of the diagnosis. © 2003 by The American College of Obstetricians and Gynecologists.

Database: EMBASE

27. Twelve cases of placental chorioangioma. Pregnancy outcome and clinical significance.

Author(s): Bashiri, A; Furman, B; Erez, O; Wiznitzer, A; Holcberg, G; Mazor, M

Source: Archives of gynecology and obstetrics; Jan 2002; vol. 266 (no. 1); p. 53-55

Publication Date: Jan 2002

Publication Type(s): Case Reports Journal Article

PubMedID: 11998969

Available at [Archives of gynecology and obstetrics](#) - from SpringerLink

Abstract:INTRODUCTIONTo determine perinatal complications and pregnancy outcome in 12 women with chorioangioma of placenta.STUDY DESIGNDuring the period between January 1986 and December 1997, 12 women with histologic diagnosis of chorioangioma of placenta who delivered in our institution were studied. Case-control study was designed. Sixty women with histologic examination of the placenta without chorioangioma were randomly identified as control group matched for maternal age and parity. Statistical analyses included t-test, Chi-square test and Fisher's exact test when appropriate.RESULTSNine cases (75%) were diagnosed postnatal. The mean gestational age was significantly lower and preterm delivery rate was significantly higher among the chorioangioma group (34 vs. 38.8 weeks $P<0.0001$; 66% vs. 10%; $P<0.001$ respectively).CONCLUSIONSChorioangioma of the placenta, in a high risk population, although small, is associated with significantly higher risk for preterm delivery. This emphasizes the need for pathologic examination of all placentas of patients with preterm delivery

Database: Medline

28. Villous capillary lesions of the placenta: Distinctions between chorangioma, chorangiomatosis, and chorangiosis

Author(s): Ogino S.; Redline R.W.

Source: Human Pathology; 2000; vol. 31 (no. 8); p. 945-954

Publication Date: 2000

Publication Type(s): Article

PubMedID: 10987255

Abstract:Chorangioma (CA), chorangiosis (CH), and chorangiomatosis (CM) are incompletely understood and overlapping villous capillary (VC) lesions believed by some to be related to hypoxia. In this study, we reviewed all cases of CA (n = 36, 0.51%) and CM (n = 39, 0.55%) diagnosed in 7,062 placentas examined at our institution between 1990 and 1999. CH was evaluated in a subsample of 689 cases (n = 46, 6.67%). Controls were derived from cases in the subsample (n = 639) without any VC lesions. Most CA were incidental findings measuring less than 0.5 cm. Nodular and multinodular morphologic variants were otherwise similar. CA were most frequently located under the chorionic plate and at the placental margins and occasionally showed nonspecific trophoblast hyperplasia (Ki-67-positive) similar to that seen in partial moles. CA and CM shared associations with preeclampsia, multiple gestation, and premature delivery at 32 to 26 weeks and had a significant co-occurrence rate. Cases of CM were separated into focal, segmental, and diffuse multifocal subgroups. Diffuse multifocal CM (n = 16) showed associations with extreme prematurity (<32 weeks), congenital malformations, IUGR, delayed villous maturation, avascular villi, and placentomegaly, which were not seen in the other 2 localized subgroups. CH lacked the associations noted for CA and CM, was not increased in placentas with CA or CM, and was most frequent at greater than 37 weeks. CH was positively associated with maternal diabetes, placentomegaly, delayed villous maturation, and chronic villitis. Finally, CH lacked the continuous perivascular layer of muscle-specific actin (MSA)-positive pericytes and the multifibrillar lattice-like reticulin pattern seen in both CA and CM. In conclusion, CA and localized CM are clinically and morphologically similar lesions distinct from CH. Diffuse multifocal CM is morphologically similar to CA and localized CM, but has a distinct clinicopathologic profile. Copyright (C) 2000 by W.B. Saunders Company.

Database: EMBASE

29. Pregnancy with concomitant chorangioma and placental vascular malformation with mesenchymal hyperplasia

Author(s): Chen C.-P.; Huang M.-C.; Chern S.-R.; Huang Z.-D.; Chuang C.-Y.; Wang T.-Y.

Source: Human Reproduction; 1997; vol. 12 (no. 11); p. 2553-2556

Publication Date: 1997

Publication Type(s): Article

PubMedID: 9436705

Available at [Human reproduction \(Oxford, England\)](#) - from Oxford Journals - Medicine

Available at [Human reproduction \(Oxford, England\)](#) - from Unpaywall

Abstract:We present two pregnancies associated with normal live births and the unusual concomitance of chorangioma and placental vascular malformation with mesenchymal hyperplasia. The enlarged placenta had the characteristic findings of chorangioma, dilated and varicose chorionic vessels and multiple vesicle-like villi containing hyaluronic acid. The vesicle-like villi showed diploid cellular DNA contents. Molecular genetic analysis using the polymerase chain reaction amplification of polymorphic microsatellite markers confirmed genetic identity among the chorangioma, the

vesicle-like villi and the fetus. Both pregnancies were complicated by polyhydramnios, preterm labour and prematurity. One neonate suffered from anaemia and thrombocytopenia. Another neonate suffered from haemangiomatosis. Our cases demonstrate that concomitant chorangioma and placental mesenchymal hyperplasia are genetically identical to the fetus and can coexist with a normal viable fetus. Since haemangiomas, chorangiomas, chorionic vessels and villi mesenchymal cells are all derived from the mesoderm, a combination of fetal haemangiomas, placental vascular malformation, chorangiomas and placental mesenchymal hyperplasia may represent a mixed form of congenital malformation of the mesoderm.

Database: EMBASE

30. Increased incidence of placental chorioangioma in high-altitude pregnancies: hypobaric hypoxia as a possible etiologic factor.

Author(s): Reshetnikova, O S; Burton, G J; Milovanov, A P; Fokin, E I

Source: American journal of obstetrics and gynecology; Feb 1996; vol. 174 (no. 2); p. 557-561

Publication Date: Feb 1996

Publication Type(s): Journal Article

PubMedID: 8623784

Abstract:OBJECTIVES Our purpose was to determine the effects of pregnancy at high altitude on the human placental structure. STUDY DESIGN Histologic material from 22 term placentas delivered at altitudes above 3600 m was examined and compared with control material from 760 m. RESULTS Intraplacental chorioangiomas were identified in 5 of the 22 high-altitude placentas but in none of the 59 controls. The lesions were not visible on the external surface of the placentas and were not encapsulated. The state of differentiation varied; some contained numerous capillaries that showed sinusoidal dilations, whereas in others at the opposite extreme mesenchymal cells predominated. The presence of chorioangiomas was frequently associated with threatened premature delivery, a circumvallate placenta, and multiple infarction. The lesions represented only a small percentage of the overall placental volume (<10%). CONCLUSIONS The increased incidence of placental chorioangioma observed at high altitude (above 3600 m) may be due to the prevailing

hypobaric hypoxia. Overexpression of angiogenic cytokines such as vascular endothelial growth factor, which is known to be up-regulated by this factor in vitro, may mediate this effect.

Database: Medline

31. Ballantyne syndrome caused by a large placental chorioangioma.

Author(s): Dorman, S L; Cardwell, M S

Source: American journal of obstetrics and gynecology; Nov 1995; vol. 173 (no. 5); p. 1632-1633

Publication Date: Nov 1995

Publication Type(s): Case Reports Journal Article

PubMedID: 7503218

Abstract:Ballantyne syndrome has been found in association with a number of antenatal complications. This first reported case of Ballantyne syndrome with a large placental chorioangioma was successfully alleviated by delivery of the fetus, placenta, and tumor. A common denominator among the Ballantyne syndrome and its associated pathologic features has not been elucidated.

Database: Medline

32. Chorangioma. A cytoskeletal profile.

Author(s): Lifschitz-Mercer, B; Fogel, M; Kushnir, I; Czernobilsky, B

Source: International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists; 1989; vol. 8 (no. 4); p. 349-356

Publication Date: 1989

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article

PubMedID: 2478492

Abstract:Cytoskeletal typing of five chorangiomas revealed diffuse staining of the blood vessels with antibodies to vimentin and to alpha smooth muscle (alpha-SM) actin, while cytokeratin 18 decorated the blood vessels focally. Focal staining for desmin was observed in two chorangiomas. Blood vessels of the placentas in which these chorangiomas arose stained for vimentin and alpha-SM actin. In addition, there was positive staining for cytokeratin polypeptide 18 in blood vessels within the chorionic plate and anchoring villi, and occasional staining for desmin. The vasculature of the



terminal villi lacked cytokeratins. The stromal elements of the chorangiomas stained for vimentin and focally for alpha-SM actin and cytokeratin 18. A similar staining pattern was also found in the placental stroma, with most of the cytokeratin positivity encountered in the chorionic plate and anchoring villi. Blood vessels in extraplacental hemangiomas were devoid of cytokeratins. These results indicate that chorangiomas originate most likely from blood vessels of the chorionic plate and anchoring villi, which, as chorangiomas, are the site of vascular cytokeratin expression.

Database: Medline

33. Abnormally large placenta associated with Beckwith-Wiedemann syndrome.

Author(s): Takayama, M; Soma, H; Yaguchi, S; Funayama, H; Fujiwara, K; Irie, H; Yamabe, S

Source: Gynecologic and obstetric investigation; 1986; vol. 22 (no. 3); p. 165-168

Publication Date: 1986

Publication Type(s): Case Reports Journal Article

PubMedID: 3536683

Abstract: A 37-year-old G1-P1 was diagnosed by ultrasonography at 26 weeks of gestation as having an abnormally large placenta with hemangiomas and a fetus associated with exomphalos. Placental protein 5 levels were relatively high in placental protein levels in maternal serum. The infant, delivered by cesarean section at 34 weeks, had the typical clinical features associated with Beckwith-Wiedemann syndrome. The abnormally large placenta weighed 1,492 g, measured 25 X 25 X 5.1 cm, and featured multiple hemangiomas. Microscopic placental features included edematous villi, increased fibrin deposition, intervillous thrombi, and multiple angiomatous and cellular chorangiomas.

Database: Medline



Strategy 632837

#	Database	Search term	Results
1	Medline	(Chorangioma* ADJ3 placenta*).ti,ab	54
2	Medline	exp HEMANGIOMA/	33407
4	Medline	exp PLACENTA/ OR exp "PLACENTA DISEASES"/	74892
5	Medline	(2 AND 4)	435
6	Medline	(chorioangioma OR angiomyxoma OR fibroangiomyxoma OR fibroma).ti,ab	7634
7	Medline	(4 AND 6)	251
8	Medline	(placenta*).ti,ab	96422
9	Medline	(6 AND 8)	272
10	Medline	(1 OR 5 OR 7 OR 9)	515
11	EMBASE	(Chorangioma* ADJ3 placenta*).ti,ab	58
12	EMBASE	exp "PLACENTA DISORDER"/	24239
13	EMBASE	exp HEMANGIOMA/	39622
14	EMBASE	(12 AND 13)	150
16	EMBASE	((chorioangioma OR angiomyxoma OR fibroangiomyxoma OR fibroma) ADJ2 placenta*).ti,ab	201



17 EMBASE

(11 OR 14 OR 16)

359