West Middlesex University Hospital

Date: 25 Sep 2017
Sources Searched: Medline, Embase.

Chronic Histiocytic Intervillositis

See full search strategy

1. Chronic histiocytic intervillositis in three consecutive pregnancies in a single patient: Differing clinical results and pathology according to treatment used.

Author(s): Ozawa, Nobuaki; Yamaguchi, Koushi; Shibata, Megumi; Sugibayashi, Rika; Yagi, Hiroya; Sago, Haruhiko; Matsuoka, Kentaro

Source: The journal of obstetrics and gynaecology research; Jul 2017

Publication Date: Jul 2017

Publication Type(s): Case Reports

PubMedID: 28691359

Abstract: Chronic histiocytic intervillositis (CHI) is an extremely rare pathological condition but is strongly associated with severe obstetric complications and has a high recurrence rate. The management of this condition has not yet been established. We describe herein the occurrence of CHI in the late second-third trimester in each of three consecutive pregnancies in a single patient with four previous consecutive early miscarriages. In this patient, each of the three complicated pregnancies was managed with one of the following, respectively: low-dose aspirin; heparin plus low-dose aspirin; and prednisolone plus low-dose aspirin. CHI was histologically confirmed in all three pregnancies, but the clinical results and pathology (e.g. extent of histiocytic infiltration) in each pregnancy clearly differed with treatment. Both combination treatments eventuated in a live birth. Immunosuppressive therapy seemed to produce better clinical results by restricting the extent of the affected areas. The elevated alkaline phosphatase associated with the CHI was assumed to have no clinical prognostic value.

Database: Medline

2. Chronic histiocytic intervillositis - Clinical, biochemical and radiological associations

Author(s): Koby L.; Keating S.; Malinowski A.; Murphy K.; D'Souza R.

Source: Obstetrics and Gynecology; May 2017; vol. 129

Publication Date: May 2017

Publication Type(s): Conference Abstract

Abstract:INTRODUCTION: To determine the clinical, biochemical and radiological features associated with a histopathologic diagnosis of chronic histiocytic intervillositis (CHI), and propose surveillance strategies for pregnancies at risk for this condition. METHODS: A retrospective chart review was conducted to identify cases with a diagnosis of CHI between 2001 and 2014. Adverse pregnancy outcomes included pregnancy loss, preterm birth, small for gestational age (SGA) and preeclampsia. Maternal tests included serum alkaline phosphatase (ALKP) and prenatal screening bioanalytes. Mid-trimester placental ultrasound reported placental dimensions, echotexture, echogenic cystic lesions, infarcts and uterine artery pulsatility indices. Late-trimester ultrasound reported umbilical artery Dopplers and amniotic fluid volume. Outcomes were described as proportions. RESULTS: Of the 261 cases of intervillositis identified, 33 were cases of CHI. Fetal demise was noted in 13/33 (39.4%) of which 11 (35.5%) were stillbirths. Of the 18 live births, 16 (88.9%) delivered prematurely; 6 of these (33.3%) before 34 weeks and 12 (66.7%) required neonatal unit admission. All babies born after 22 weeks were SGA, with 15/23 (65.2%) under the 3rd centile. Preeclampsia complicated 9/33 (27.3%) of pregnancies. 12/16 (75.0%) had at least one abnormal prenatal screening bioanalyte and 6/19 (31.57%) ALKP levels 2.5 times above normal. 15/20 (75.0%) had at least one abnormal mid-trimester placental ultrasound marker. CONCLUSION: CHI is associated with a cluster of clinical, biochemical or radiological findings. Given the high recurrence rate and no available treatment, individualized care plans based on a combination of clinical, biochemical and radiological tests have been proposed to improve outcomes in subsequent pregnancies.

Database: EMBASE

3. Successful pregnancy following treatment of recurrent chronic histiocytic intervillositis.

Author(s): Vardi, Leehe; Paterson, Helen; Hung, Noelyn Anne

Source: BMJ case reports; Jan 2017; vol. 2017

Publication Date: Jan 2017

Publication Type(s): Case Reports Journal Article Review

PubMedID: 28073874

Available in full text at BMJ Case Reports - from Highwire Press

Abstract: Chronic histiocytic intervillositis (CHI) is a rare placental lesion associated with adverse obstetric outcomes and high recurrence rate. We report a case of six consecutive pregnancies in one woman, where CHI was detected following an intrauterine death in the fifth pregnancy, after being missed in four earlier losses. The successful sixth pregnancy was treated with a combination of immunosuppressive and antithrombotic agents. While low-molecular-weight heparin (LMWH) and aspirin had been shown to improve pregnancy outcome in recurrent pregnancy loss, there was limited evidence of improved outcome in CHI. It has been suggested that CHI may result from a maternal immunological process and there have been a few reports of the use of corticosteroids because of this possibility, though without convincing evidence of efficacy. We too tried a corticosteroid, in combination with LMWH and aspirin. Comparative histopathological analysis of the placentae supported post-treatment effectiveness of our intervention strategy.

Database: Medline

4. Recurrent chronic histiocytic intervillositis with intrauterine growth restriction, osteopenia, and fractures.

Author(s): Crawford, April; Moore, Lynette; Bennett, Gregory; Savarirayan, Ravi; Manton, Nicholas; Khong, Yee; Barnett, Christopher P; Haan, Eric

Source: American journal of medical genetics. Part A; Nov 2016; vol. 170 (no. 11); p. 2960-2964

Publication Date: Nov 2016

Publication Type(s): Journal Article

PubMedID: 27481052

Abstract: Chronic histiocytic intervillositis (CHI) is characterized by the presence of histiocytes within the intervillous space of the placenta. The pathogenesis is unclear but available evidence supports an alloimmune mechanism on the basis of the presence in maternal blood of HLA antibodies directed against paternal HLA antigens. CHI has a high risk of recurrence and of abnormal perinatal outcomes. Little is known about the effects of CHI on the developing fetus, in particular on the growth and development of the skeleton. We have studied a woman whose third pregnancy was terminated after ultrasonography showed severe intrauterine growth restriction, raising the possibility of a lethal skeletal dysplasia. Postmortem radiographs showed multiple fractures and other signs of osteogenesis imperfecta (OI). However, bone histology was not typical of OI and no abnormalities were identified by sequencing OI genes. The subsequent pregnancy was also severely growth restricted and was terminated. The placenta showed chronic histiocytic intervillositis, which, on retrospective review, had also been present in her second and third pregnancies. Her fifth pregnancy was again associated with intrauterine growth restriction and CHI but resulted in a premature birth. CHI can be associated with radiographic features that mimic OI and should be considered when fetal fractures occur in the context of recurrent miscarriage, fetal death in utero, and intrauterine growth restriction. The correct diagnosis can be made by histopathology of the placenta, supported by bone histology and normal results of molecular studies for OI. © 2016 Wiley Periodicals, Inc.

Database: Medline

5. Massive chronic intervillositis of the placenta: A rare placental lesion with high risk of recurrences

Author(s): Adznan N.; Rahim N.S.; Hayati A.R.; Philip V.D.

Source: Malaysian Journal of Pathology; Aug 2016; vol. 38 (no. 2); p. 210

Publication Date: Aug 2016

Publication Type(s): Conference Abstract

Abstract: Introduction: Massive chronic intervillositis (MCV) or currently known as chronic intervillositis of unknown aetiology is a rare poorly understood placental lesion. MCV is strongly associated with recurrent spontaneous miscarriages, IUGR and fetal demise. We described a case of MCV in a lady with consecutive recurrent miscarriages. Case report: The patient was a 37-year-old lady who had ten consecutive recurrent first trimester miscarriages within the last 13 years. She has no living child and the relevant blood investigations were not helpful in determining the cause of recurrent miscarriages. Histopathological examination of the conception tissues showed abundant aggregates of CD 68 positive histiocytes primarily within the intervillous spaces associated with increased perivillous fibrin deposition. No significant villitis were seen. The findings were consistent with massive chronic intervillositis. Discussion and conclusion: MCV is associated with high recurrence rate of spontaneous miscarriages. In general, practicing pathologist are unfamiliar with MCV. The histiocytes may be missed during a routine reporting of tissue from products of conception if important clinical informations are not being highlighted to the pathologists. Chronic intervillositis of infectious etiology should be excluded. However the etiology of MCV remains unclear. The histiocytes are maternal in origin which led to the hypothesis of a possible abnormal maternal immune reaction towards the placental tissue in the pathogenesis of MCV. Obstetricians and pathologists should be made aware of this entity. Until today, no proven effective treatment has been proposed to prevent recurrences. Further studies are required in the understanding of this entity and in the prevention of recurrent pregnancy losses.

Database: EMBASE

6. Chronic histiocytic inter villositis and its management in subsequent pregnancies

Author(s): Elangovan V.

Source: Journal of Perinatal Medicine; Oct 2015; vol. 43

Publication Date: Oct 2015

Publication Type(s): Conference Abstract

Abstract: Background Chronic histiocytic intervillositis (CHI) is a rare immunological condition, affecting the placenta. This is a poorly understood disease, which can occur in all three trimesters. Recent studies have revealed that this disease involves histiocytic infiltration of the intervillous space with sparing of the villous parenchyma. At present, diagnostic criterions have not been set for this disease, and diagnosis is based solely on post-natal histological reports of the placenta. Maternal risk factors such as infections, thrombophilia and lupus exist. Case We report the case of a 26 year-old-woman who was seen for early consultant opinion in her second pregnancy. Her previous pregnancy was terminated at 20 + 3 weeks. Ultrasound scans revealed markedly reduced liquor volume. The thoracic circumference of the fetus was noted to be below the 2.5th centile and the length of the long bones was below the 5th centile. All biometrics were below the normal values. The fetus was delivered on the 25th May 2013 for possible skeletal dysplasia. Postmortem reports combined with histological studies of the placenta revealed CHI. Conclusion/Discussion Considering this condition has an increased tendency for disease recurrence, and its poor association with perinatal outcome including foetal growth restriction, it is important to highlight the management of future pregnancies as 'high-risk'. TORCH screen, Lupus anticoagulant, thrombophilia and ALP should be monitored subsequently. Patients should also be advised on folic acid, LMWH and prednisolone. At present CHI is a diagnosis of exclusion and other genetic conditions need to be ruled out even if histology is very suggestive of CHI.

Database: EMBASE

7. Massive perivillous fibrin deposition, chronic histiocytic intervillositis and villitis of unknown etiology: Lesions of the placenta at the fetomaternal interface with risk of recurrence

Author(s): Feist, H; Blöcker, T; Hussein, K

Source: Der Pathologe; Jul 2015; vol. 36 (no. 4); p. 355-361

Publication Date: Jul 2015

Publication Type(s): English Abstract Journal Article Review

PubMedID: 25613921

Abstract:BACKGROUNDMaternal floor infarction/massive perivillous fibrin deposition (MFI/MFD), chronic histiocytic intervillositis (CHIV) and villitis of unknown etiology (VUE) are lesions of the placenta which are characterized morphologically. The cause is thought to be pathological immunotolerance/rejection reaction at the fetomaternal interface. The risk of recurrence is elevated and the lesions can lead to severe pediatric diseases.AIMThis article provides an overview of the pathological and anatomical characteristics of each of these lesions, including diagnostic criteria, suspected etiology, clinical relevance and suggested therapy options.MATERIAL AND METHODSA selective search of the literature was carried out and experiences from own diagnostic clientele are presented.RESULTS AND DISCUSSIONWhile MFI/MFD and CHIV occur more rarely, VUE is relatively common occurring in up to 15 % of placentas at term. Both MFI/MFD and CHIV can occur in the first and second trimester, while VUE typically manifests in the third trimester. All lesions can lead to intrauterine growth retardation or abortion and have a tendency towards disease recurrence. Furthermore, VUE and MFI/MFD can be associated with an adverse neurodevelopmental outcome in the children. For all these entities potential therapy strategies have been reported, which are mainly based on anticoagulation and immunosuppression in subsequent pregnancies.

Database: Medline

8. Chronic histiocytic intervillositis: outcome, associated diseases and treatment in a multicenter prospective study.

Author(s): Mekinian, Arsène; Costedoat-Chalumeau, Nathalie; Masseau, Agathe; Botta, Angela; Chudzinski, Anastasia; Theulin, Arnaud; Emmanuelli, Virginie; Hachulla, Eric; De Carolis, Sara; Revaux, Aurélie; Nicaise, Pascale; Cornelis, Françoise; Subtil, Damien; Montestruc, Francois; Bucourt, Martine; Chollet-Martin, Sylvie; Carbillon, Lionel; Fain, Olivier; SNFMI and the European Forum of APS

Source: Autoimmunity; Feb 2015; vol. 48 (no. 1); p. 40-45

Publication Date: Feb 2015

Publication Type(s): Multicenter Study Journal Article

PubMedID: 25028066

Abstract:UNLABELLEDIntroduction: In this prospective multicenter study, we aimed to describe (1) the outcome of pregnancy in the case of previous chronic histiocytic intervillositis (CHI), (2) the immunological findings and associated diseases, (3) the treatments, and (4) the factors associated with pregnancy loss.METHODSWe prospectively included all patients with a prior CHI with ongoing pregnancy between 2011 and 2013.RESULTSTwenty-four women (age 34±5 years) were included in this study. An autoimmune disease was present in seven (29%) cases. Twenty-one prospective pregnancies were treated. The number of live births was more frequent comparatively to the previous obstetrical issues (16/24 versus 24/76; p=0.003). Most of the pregnancies were treated (88%), whereas only 13% of previous pregnancies were treated (p<0.05). No difference was found with respect to the pregnancy outcome in the different treatment regimens. In univariate analyses, a prior history of intrauterine death and intrauterine growth restriction and the presence of CHI in prospective placentas were associated with failure to have a live birth.DISCUSSIONIn this multicenter study, we show the frequency of the associated autoimmune diseases in CHI, as well as the presence of autoantibodies without characterized autoimmune disease. The number of live births increased from 32% to 67% in the treated pregnancies. Despite the treatment intervention, the risk of preterm delivery remained at 30%. Last, we show that the recurrence rate of an adverse pregnancy outcome persisted at 30% despite treatment intervention.CONCLUSIONCHI is associated with high recurrence rate and the combined regimen seems to be necessary, in particular, in the presence of previous intrauterine death.

Database: Medline

9. Antiphospholipid syndrome and other autoimmune diseases associated with chronic intervillositis

Author(s): Revaux A.; Carbillon L.; Mekinian A.; Fain O.; Nicaise P.; Chollet-Martin S.; Bucourt M.; Cornelis F.; Lachassinne E.

Source: Archives of Gynecology and Obstetrics; Nov 2014

Publication Date: Nov 2014

Publication Type(s): Article In Press

PubMedID: 25416199

Abstract: Objectives: Chronic intervillositis of unknown etiology (CIUE) is characterized by an intervillous infiltrate of mononuclear cells and a high recurrence rate of adverse obstetrical outcomes. The aim was to describe obstetrical history in patients with at least one event characterized by CIUE, and the possible impact of systematic investigation of an underlying autoimmune disease on the obstetrical outcome of subsequent pregnancies.Methods: We retrospectively reviewed all pregnancies in patients having experienced at least one adverse obstetric outcome associated with chronic intervillositis of unknown etiology diagnosed by placental histological analysis between 2004 and 2011 in our university hospital. For each patient, data pertaining to obstetrical history, treatments during pregnancies, the results of systematic investigation of an underlying autoimmune disease, and treatments as well as obstetrical outcome in subsequent pregnancies, were collected.Results: Twelve patients with 38 pregnancies were included [median age 30 (22; 40 years)]. Autoimmune disease or autoimmune antibodies (AID group) were found in 7/12 patients: primary antiphospholipid syndrome (APS) (n = 4), Sjogren's syndrome (n = 1), pernicious anemia (n = 1) and celiac disease (n = 1). When comparing pregnancies of patients with and without AID, there was no difference with regard to the type of obstetrical events or live-born babies, in spite of appropriate treatment. Corticosteroids (prednisone 10 mg/day) were used in only 2 cases with AID (Sjogren's syndrome and APS; n = 1 each), and these 2 pregnancies resulted in live-born babies.Conclusion: This study shows that the immunological assessment in patients with CIUE raises the possibility of a specific severity when AID or obstetrical APS is associated with CIUE, since conventional treatment did not improve obstetrical outcome in these patients as compared to those without autoimmune diseases. The benefit of immunosuppressant agents in this subset of patients needs further evaluation.

Database: EMBASE

10. Neonatal alloimmune thrombocytopenia associated with massive chronic intervillositis: A case report and review of the literature

Author(s): Tchakarov A.; Tatevian N.; Coffey A.

Source: Pediatric and Developmental Pathology; 2013; vol. 16 (no. 1); p. 32-34

Publication Date: 2013

Publication Type(s): Article

PubMedID: 23113771

Available in full text at Pediatric and Developmental Pathology - from ProQuest

Abstract: Neonatal alloimmune thrombocytopenia (NAIT) presents as isolated thrombocytopenia in a normal neonate as a result of destruction of fetal platelets by maternal antibodies against paternally derived human platelet antigens. Neonatal alloimmune thrombocytopenia affects 0.1% of births, with maternal antibodies crossing the placenta as early as 14 weeks' gestation. Few reports describe placental histopathological changes occurring in NAIT cases. We present a case of NAIT associated with massive chronic intervillositis, a rare entity occurring in 0.06% to 0.8% of reviewed 2nd- and 3rd-trimester placentas; to our knowledge, this is the 1st report of such an association. © 2013 Society for Pediatric Pathology.

Database: EMBASE

11. An immunological basis for chronic histiocytic intervillositis in recurrent fetal loss.

Author(s): Reus, Averil D; van Besouw, Nicole M; Molenaar, Nikki M; Steegers, Eric A P; Visser, Willy; de Kuiper, Ronella P; de Krijger, Ronald R; Roelen, Dave L; Exalto, Niek

Source: American journal of reproductive immunology (New York, N.Y. : 1989); Sep 2013; vol. 70 (no. 3); p. 230-237

Publication Date: Sep 2013

Publication Type(s): Journal Article

PubMedID: 23611029

Available in full text at American Journal of Reproductive Immunology - from John Wiley and Sons

Abstract:PROBLEMChronic histiocytic intervillositis (CHIV) is a rare type of placental pathology that is associated with reproductive loss at all gestational ages. The aim of the study was to investigate the relationship between the severity of CHIV and the outcome of pregnancy and to compare the immune response between CHIV patients and controls to explore an immunological origin of CHIV.METHOD OF STUDYMicroscopic slides were reviewed and scored according to a previously published grading system in 30 pregnancies of 22 CHIV patients. Partner-specific mixed lymphocyte reactions, cytotoxic T-lymphocyte precursor frequencies (CTLpf), and anti-HLA antibodies were determined in four patients and seven controls.RESULTSHigher CHIV scores are associated with worse pregnancy outcome. CHIV patients demonstrated a higher CTLpf against their partner compared to non-complicated pregnancies (P = 0.03). The CTLpf was extremely high in 75% of the patients. Antipaternal HLA antibodies were only present in 75% of the CHIV patients compared to none of the controls (P = 0.02).CONCLUSIONCHIV scores seem to be associated with the severity of adverse pregnancy outcome. High antipaternal cellular (T-cell) and humoral (B-cell) response to partner-specific CTLpf and the presence of anti-HLA antibodies directed to the partner suggest an immunologic origin of CHIV.

Database: Medline

12. Chronic histiocytic intervillositis-a rare placental inflammatory disease associated with poor obstetric outcome and elevated maternal serum alkaline phosphatase: A case report

Author(s): Das I.; Thamban S.; Agarwal N.

Source: BJOG: An International Journal of Obstetrics and Gynaecology; Jun 2013; vol. 120 ; p. 155

Publication Date: Jun 2013

Publication Type(s): Conference Abstract

Available in full text at BJOG: An International Journal of Obstetrics and Gynaecology - from John Wiley and Sons

Abstract: Introduction Chronic histiocytic intervillositis (CHI) is a placental inflammatory condition characterised by infiltration of the intervillous space by maternal mononuclear cells, fibrin deposits and trophoblastic erosion. It has been linked to miscarriage, intrauterine growth restriction (IUGR) and in utero death. We report a case of a woman who developed severe pre-eclampsia at 30 weeks of gestation with an IUGR baby. Of note, her serum alkaline phosphatase (ALP) levels were grossly elevated. Subsequent histological examination of her placenta revealed features characteristic of CHI. Case Report A 36-year-old Caucasian lady, gravida 4 para 0 + 3, had previously miscarried at 20, 5 and 5 weeks in her three previous pregnancies. She presented at 26 weeks of gestation with significant pedal oedema but normal blood pressure and no proteinuria. Her ALP was found to be elevated at 1376 U/L. At 30 weeks of gestation her oedema had progressed and blood pressure was elevated. Her ALP had increased to 2241 U/L and she was commenced on antihypertensive medication. ALP isoenzymes were found to be placental in origin. At 33 + 5 weeks of gestation her blood pressure was elevated and she was complaining of visual disturbance. Serum ALP was 3319 U/L. After commencing magnesium sulphate, decision was made for imminent delivery by caesarean section in light of her severe preeclampsia. However, vaginal examination revealed she was fully dilated and there was spontaneous vaginal delivery of a live female infant. The baby weighed 2.12 kg and was transferred to the Special Care Baby Unit. Results Placental histology revealed 'diffuse uniform infiltration of the intervillous space by macrophages'. There was also 'multifocal fibrin deposition'. The report also stated 'villitis is minimal and the predominant location of the infiltrate is within the intervillous space. The appearances are of chronic histiocytic intervillositis'. Discussion CHI has been associated with grossly elevated levels of maternal ALP. As ALP can be both placental and biliary in origin, characterisation of the isoenzyme will provide further information as to the origin of this enzyme. It is a cause for concern due to the severe obstetric complications associated with it and elevated ALP may often be the first marker of underlying CHI. Conclusion Clinicians should consider a diagnosis of CHI in cases with severe obstetric complications or poor outcome. In addition, raised ALP levels may be indicative of underlying syncytiotrophoblastic damage in CHI and these women should be monitored closely for potential complications that may arise during their pregnancy.

Database: EMBASE

13. Villitis of Unknown Etiology and Massive Chronic Intervillositis.

Author(s): Chan, Joanna S Y

Source: Surgical pathology clinics; Mar 2013; vol. 6 (no. 1); p. 115-126

Publication Date: Mar 2013

Publication Type(s): Journal Article

PubMedID: 26838706

Abstract: Villitis of unknown etiology (VUE) is a common lesion affecting from 6.6% to 33.8% of third-trimester placentas. VUE needs to be distinguished from villitis of infectious etiology, most commonly cytomegalovirus and syphilis. Clinically, this lesion is associated with intrauterine growth retardation, intrauterine fetal demise, fetal neural impairment, maternal alloimmune and autoimmune disease, and maternal hypertension. It has a tendency to recur in subsequent pregnancies. Massive chronic intervillositis (MCI), also known as chronic histiocytic intervillositis, is a rare lesion that has an unclear relationship with VUE. MCI is associated with recurrent abortions.

Database: Medline

14. Chronic histiocytic intervillositis and recurrent pregnancy loss

Author(s): Molenaar N.; Steegers E.A.P.; Visser W.; Exalto N.; Van Besouw N.H.; De Kuiper P.; De Krijger R.

Source: Human Reproduction; 2011; vol. 26

Publication Date: 2011

Publication Type(s): Conference Abstract

Available in full text at Human Reproduction - from Oxford University Press ; Collection notes: To access please select Login with Athens and search and select NHS England as your institution before entering your NHS OpenAthens account details.

Abstract: Introduction: Chronic histiocytic intervillositis (CHIV), a placental lesion ofunknown pathogenesis, is associated with recurrent miscarriage, intrauterinefetal death (IUFD) and postpartum fetal death (PPFD), at all gestational ages.CHIV is rare and has a high rate of recurrence varying between 67% and 100%.It is characterized by an intervillous infiltrate of maternal mononuclear (CD45 +and CD68 +) cells and intervillous fibrinoid deposition at the materno-fetal interface.Recently, we found that pre-eclamptic women have higher cytotoxicT-lymphocyte precursor frequency (CTLpf) to paternal antigens compared topregnant controls. The aim of our study is to investigate the relation betweenthe severity of the lesions and outcome of pregnancy. A secondary aim is to confirman immunologic origin of CHIV by investigating CTLpf in these patients.Material and Methods: Between 2000 and 2010, 21 patients with 31 pregnanciesdiagnosed with CHIV were available in a database of the department ofpathology. Clinical data were collected and microscopic slides of the placenta, both hematoxylin and eosin (HE) and immunohistochemical stained (CD68 +), were scored (absent; focal: 50%) blindly. In 3 patients, who still visit our outpatient department, wedetermined the CTLpf against their partner and against a control partner.Results: 12 out of 31 pregnancies ended in IUFD (median GA: 92 days; range:52 - 208 days), 10 in PPFD (median GA: 132 days; range: 104 - 216 days)and only 9 were live born (median GA: 250 days; range: 185 - 283 days).The diagnosis CHIV by scoring HE and immuno stained slides was either notconfirmed (absent: 3/31; 9.7%) or was present in varying degree (focal: 3/31;9.7%% vs. moderate: 13/31; 41.9% or severe/massive: 11/31; 35.5%). In pregnanciesending in IUFD and PPFD more severe/massive CHIV (8/12 resp 7/10)was observed as compared to pregnancies with live born children (0/9). Aninverse relation was observed between the severity of CHIV and duration ofpregnancy (severe/massive: 133; 56 - 208 days; moderate: 218; 52 - 283 days;focal: 250; 216 - 261

days). Two out of three patients demonstrated an extremehigh CTLpf against their partner (590 and 592/106 PBMC) and controls as well(154 and1431/106 PBMC) and in one patient (partner: 66/106 PBMC; control:82/106 PBMC) the responses were within the normal range of pregnant women(median 67/106 PBMC, range: 10-200).Conclusions: A relation was observed between the severity of CHIV and theoutcome of pregnancy, indicating that severe CHIV was observed more frequentlyin IUFD / PPFD and a shorter duration of pregnancy. An extreme highpartner-specific CTLpf is indicative for an immunological response comparableto a host versus graft reaction.

Database: EMBASE

15. Chronic histiocytic intervillositis of unknown etiology: clinical features in a consecutive series of 69 cases.

Author(s): Marchaudon, V; Devisme, L; Petit, S; Ansart-Franquet, H; Vaast, P; Subtil, D

Source: Placenta; Feb 2011; vol. 32 (no. 2); p. 140-145

Publication Date: Feb 2011

Publication Type(s): Journal Article

PubMedID: 21183219

Abstract:INTRODUCTIONChronic histiocytic intervillositis of unknown etiology (CIUE) is a rare placental inflammatory disease, associated with severe obstetric complications. Its pathophysiologic mechanism remains to be elucidated.AIMTo establish anatomical-clinical correlations to improve our understanding of CIUE pathophysiology.MATERIAL AND METHODSRetrospective study of all cases of CIUE occurring during a 9-year period in a university tertiary hospital center.RESULTSCIUE was diagnosed in 69 pregnancies in 50 different women, after early spontaneous abortions (30.4%), late spontaneous abortions (13.0%), in utero deaths (26.1%), and live births (30.4%). Of 39 fetuses surviving to at least 22 weeks, 24 had severe intrauterine growth restriction (61.5%) and 18 died in utero (46.2%). Twelve in utero deaths occurred before 32 weeks of gestation (66.7%). Substantially elevated alkaline phosphatase levels (>600 IU/L) were observed in 55.6% of cases. Microscopic examination of placentas showed that both spontaneous early abortions and intrauterine growth restriction were significantly associated with more intense fibrin deposits.CONCLUSIONA diagnosis of CIUE must be considered in cases of severe obstetric complications. We hypothesize that the elevated alkaline phosphatases (ALP) observed during the pregnancy demonstrate the presence of syncytiotrophoblastic lesions due to histiocytosis in the intervillous space, before fibrin deposits cover them.

Database: Medline

16. Pathological characteristics of a series of rare chronic histiocytic intervillositis of the placenta.

Author(s): Traeder, J; Jonigk, D; Feist, H; Bröcker, V; Länger, F; Kreipe, H; Hussein, K

Source: Placenta; Dec 2010; vol. 31 (no. 12); p. 1116-1119

Publication Date: Dec 2010

Publication Type(s): Journal Article

PubMedID: 20947163

Abstract: Chronic histiocytic intervillositis of the placenta (CHI) is a rare and poorly understood pathology which may occur in all trimesters. The most conspicuous feature is a histiocytic infiltration of the intervillous space without involvement of the villous parenchyma. In this report on CHI, we re-evaluate a series of four cases and focus on histological, immunohistological and fluorescence in situ hybridisation-derived findings, fetal status and clinical data for previously unrecognised CHI-associated features. Our approach revealed that assisted reproduction-induced pregnancy had been performed in 2 of 4 CHI cases, but other factors and comorbidities are likely to contribute to CHI.

Database: Medline

17. Chronic intervillositis of unknown etiology (CIUE): relation between placental lesions and perinatal outcome.

Author(s): Parant, Olivier; Capdet, Jérôme; Kessler, Sylvie; Aziza, Jacqueline; Berrebi, Alain

Source: European journal of obstetrics, gynecology, and reproductive biology; Mar 2009; vol. 143 (no. 1); p. 9-13

Publication Date: Mar 2009

Publication Type(s): Journal Article

PubMedID: 19121887

Abstract:OBJECTIVESTo evaluate perinatal outcome of pregnancies complicated by chronic intervillositis of unknown etiology (CIUE) and to study the relation between extent of such placental histological lesions and clinical expression.STUDY DESIGNDescriptive and retrospective study including all cases of CIUE diagnosed between 2000 and 2006 in the university hospital of Toulouse (France). Perinatal outcome was evaluated according to the extent of placental lesions assessed by semi-quantitative graduation.RESULTSTwenty pregnancies complicated by CIUE were included (14 patients). Three pregnancies were prematurely interrupted spontaneously during the first trimester. Perinatal outcome of the remaining 17 pregnancies beyond 22 WG was: 4 intrauterine fetal deaths, 3 terminations of pregnancy for early and severe intrauterine growth restriction (IUGR), and 10 live births (58.8%). All fetal deaths, 82.3% of pregnancies beyond 22 WG and 70% of live births were growth restricted. Severe intervillositis with massive fibrinoid deposition was associated with a severe perinatal prognosis whereas focal forms had a best evolution. The rate of recurrence was 100% in the reported cases.CONCLUSIONCIUE have a poor perinatal outcome and a high rate of recurrence. There is a relation between clinical expression and histological lesions.

Database: Medline

18. Combining corticosteroid and aspirin for the prevention of recurrent villitis or intervillositis of unknown etiology.

Author(s): Boog, G; Le Vaillant, C; Alnoukari, F; Jossic, F; Barrier, J; Muller, J-Y

Source: Journal de gynecologie, obstetrique et biologie de la reproduction; Jun 2006; vol. 35 (no. 4); p. 396-404

Publication Date: Jun 2006

Publication Type(s): Case Reports English Abstract Journal Article

PubMedID: 16940908

Available in full text at Journal de Gynécologie Obstétrique et Biologie de la Réproduction - from Free Access Content

Abstract: We report the cases of two patients who had a favorable outcome with aspirin and corticosteroid therapy during pregnancy for chronic villitis of unknown etiology complicated by labor asphyxia and further intrauterine fetal demise in one gravida 3 patient and for chronic intervillositis of unknown etiology diagnosed after three perinatal deaths in another patient (gravida 4). Chronic villitis of unknown etiology (CVUE) is detected in 7 to 33% of placentas, mainly after intrauterine growth retardation (IUGR), unexplained prematurity, preeclampsia, perinatal asphyxia and intrauterine fetal death (IUFD). The less frequent chronic intervillositis of unknown etiology (CIUE) (0.6 to 0.9/1.000) has been implicated in recurrent severe pregnancy complications, such as spontaneous abortions, IUGR and IUFD. Histopathology and immunohistology are in favor of an immune response against the foreign fetal allograft. The favorable results obtained with corticosteroids and aspirin remain to be confirmed by larger series.

Database: Medline

19. Chronic histiocytic intervillositis: a placental lesion associated with recurrent reproductive loss.

Author(s): Boyd, T K; Redline, R W

Source: Human pathology; Nov 2000; vol. 31 (no. 11); p. 1389-1396

Publication Date: Nov 2000

Publication Type(s): Journal Article

PubMedID: 11112214

Abstract: Chronic (histiocytic) intervillositis (CHIV), defined for the purposes of this study as diffuse histiocytic infiltration of the intervillous space without villitis, is an idiopathic lesion seen in the chorionic sacs of some spontaneous abortion specimens and placentas. In this retrospective study, we evaluated all patients diagnosed with CHIV from 2 hospitals between 1993 and 2000, plus 1 additional patient from 1977. Histopathology, phenotype of the leukocytic infiltrate, perinatal outcome, and other associated clinical features were assessed by review of clinical records and all available pathology specimens plus immunohistochemical staining. CHIV was found in 31 of 45 specimens examined from 21 patients (23 of 31 first trimester, 3 of 5 second trimester, and 5 of 9 third trimester). Recurrence rate was 67% for patients with more than one specimen reviewed. Overall perinatal mortality rate was 77%, and only 18% of pregnancies reached 37 weeks. Eight of 19 patients with 3 or more pregnancies had recurrent spontaneous abortion (RSA); 5 with primary RSA (> or = 3 consecutive spontaneous abortions (SAB) with no living children) and 3 with secondary RSA (> or = 3 consecutive SAB with 1 or more living children). Severe intrauterine growth restriction was seen in 5 of 8 second- and third-trimester placentas with CHIV. Patients were generally not of advanced maternal age (mean, 29.8 +/- 6.2 years), and there was no obvious racial predisposition. Autoimmune or allergic phenomena were identified in 11 patients. Immunohistochemical staining of the intervillous infiltrate showed a near uniform population of monocyte-macrophages at varying

stages of maturity and activation: more than 90% CD45Rb and CD68 positive, 30% to 40% MAC387 positive, less than 5% CD3 positive, and CD1a, CD20, CD30, and CD56 negative. We conclude that CHIV is an uncommon but important cause of recurrent spontaneous abortion and, in some cases, loss at later gestational ages. HUM PATHOL 31:1389-1396.

Database: Medline

20. Massive chronic intervillositis of the placenta associated with malaria infection.

Author(s): Ordi J; Ismail MR; Ventura PJ; Kahigwa E; Hirt R; Cardesa A; Alonso PL; Menendez C

Source: The American journal of surgical pathology; Aug 1998; vol. 22 (no. 8); p. 1006-1011

Publication Date: Aug 1998

Publication Type(s): Journal Article

PubMedID: 9706981

Available in full text at American Journal of Surgical Pathology - from Ovid

Abstract: Massive chronic intervillositis (MCI) is an infrequently recognized placental lesion thought to be of immunologic origin that has been associated with poor fetal outcome. It is characterized by a prominent inflammatory infiltrate in the intervillous space, composed mainly of monocytes and macrophages that can simulate a maternal malignant disorder involving the placenta. The villi are characteristically spared. We report 74 cases of placental malarial infection with morphologic features of MCI. In all cases, the massive inflammatory infiltrate was limited to the intervillous space, which appeared largely obliterated. Increased fibrin deposition and prominent syncytial knots were frequent associated findings. Inflammatory cells were CD45 and CD68 positive, consistent with a monocyte-macrophage population. Some polymorphonuclear leukocytes and scattered T and B lymphocytes were also present. Villi were not inflamed. Malarial pigment was present in all cases, and parasitized maternal erythrocytes were evident in 73 of 74 patients. The histologic pattern of MCI was observed in 17.6% of placentas with malarial parasites. Malarial MCI affected predominantly primigravida women (77%) and was associated with a reduced birth weight, which in 39 (53%) of the infants was less than 2500 g, and a low gestational age. None of the infants with placentas with MCI died in the early neonatal period. Morphologic changes of MCI are seen in a significant percentage of placentas with malarial infection, especially in primigravida women, and are associated with a low birth weight. Malarial infection should therefore be considered in the differential diagnosis of massive intervillous infiltrates.

Database: PubMed

21. Massive chronic intervillositis associated with recurrent abortions.

Author(s): Doss, B J; Greene, M F; Hill, J; Heffner, L J; Bieber, F R; Genest, D R

Source: Human pathology; Nov 1995; vol. 26 (no. 11); p. 1245-1251

Publication Date: Nov 1995

Publication Type(s): Case Reports Journal Article

PubMedID: 7590700

Abstract: Massive chronic intervillositis (MCI) is an unusual placental lesion associated with poor fetal growth and adverse pregnancy outcome; it has not previously been associated with spontaneous abortion or recurrent pregnancy loss. This article reports a patient who had 10 spontaneous abortions with repetitious massive chronic intervillositis documented in four of five gestations spanning all three trimesters. Characteristic placental histology induced massive infiltration of the maternal intervillous space by chronic inflammatory cells and fibrin, without associated chronic villitis; the cellular infiltrate was composed predominantly of LCA and CD68 immunoreactive cells with scattered CD45RO positivity, consistent with a monocyte/macrophage population with occasional T lymphocytes. Elevated maternal serum alpha-fetoprotein was documented in two pregnancies. These findings support the concept that this unusual placental lesion may have an immunologic basis, and suggest that MCI may be a histopathologically recognizable cause of recurrent spontaneous abortion.

Database: Medline

Strategy 278644

#	Database	Search term	Results
1	Medline	("Chronic Histiocytic Intervillositis").ti,ab	20
2	Medline	("Chronic Intervillositis of Unknown etiology").ti,ab	4
3	Medline	("Massive Chronic Intervillositis").ti,ab	10
4	Medline	(1 OR 2 OR 3)	32
5	EMBASE	("Chronic Histiocytic Intervillositis").ti,ab	26
6	EMBASE	("Chronic Intervillositis of Unknown etiology").ti,ab	4
7	EMBASE	("Massive Chronic Intervillositis").ti,ab	12
8	EMBASE	(5 OR 6 OR 7)	40
9	EMBASE	("Chronic Intervillositis of Unknown aetiology").ti,ab	1
10	Medline	("Chronic Intervillositis of Unknown aetiology").ti,ab	0
11	PubMed	("Chronic Histiocytic Intervillositis").ti,ab	20
12	PubMed	("Chronic Intervillositis of Unknown etiology").ti,ab	5
13	PubMed	("Massive Chronic Intervillositis").ti,ab	10
14	PubMed	(11 OR 12 OR 13)	33