



DISCLAIMER: Results of database and or Internet searches are subject to the limitations of both the database(s) searched, and by your search request. It is the responsibility of the requestor to determine the accuracy, validity and interpretation of the results.

Date: 2 March 2020

Sources Searched: Medline, Embase, CINAHL.

Toxoplasmosis in Pregnancy

[See full search strategy](#)

1. Fifteen-minute consultation: Management of the infant born to a mother with toxoplasmosis in pregnancy.

Author(s): Saso, Anja; Bamford, Alasdair; Grewal, Karen; Noori, Muna; Hatcher, James; D'Arco, Felice; Guy, Edward; Lyall, Hermione

Source: Archives of disease in childhood. Education and practice edition; Feb 2020

Publication Date: Feb 2020

Publication Type(s): Journal Article Review

PubMedID: 32071105

Available at [Archives of disease in childhood. Education and practice edition](#) - from BMJ Journals - NHS

Available at [Archives of disease in childhood. Education and practice edition](#) - from Unpaywall

Abstract: Congenital toxoplasmosis occurs following transplacental transfer of *Toxoplasma gondii*. Irrespective of symptom status at birth, infants with congenital infection may develop serious long-term sequelae, including learning disability, seizures, hydrocephalus, motor and hearing deficits, chorioretinitis and retinal scarring with impaired vision. Timely diagnosis facilitates early initiation of therapy, aimed at prevention or amelioration of adverse clinical consequences. Diagnosis can be difficult, however, since acutely infected mothers are often asymptomatic and laboratory testing can be complex. Moreover, any decision to start treatment in the newborn must include careful consideration of the benefits and risks. This paper outlines a structured approach for managing an infant born to a woman with possible or confirmed *T. gondii* infection during pregnancy, including key aspects of the antenatal history, interpretation and timing of investigations, treatment and appropriate follow-up. Our recommendations are based on current evidence in the literature, consensus from two UK paediatric infectious disease centres and the UK specialist Toxoplasma Reference Unit.

Database: Medline

2. Global prevalence of latent toxoplasmosis in pregnant women: a systematic review and meta-analysis

Author(s): Rostami A.; Riahi S.M.; Gamble H.R.; Fakhri Y.; Shiadeh M.N.; Danesh M.; Behniafar H.; Paktinat S.; Foroutan M.; Mokdad A.H.; Hotez P.J.; Gasser R.B.

Source: Clinical microbiology and infection : the official publication of the European Society of Clinical Microbiology and Infectious Diseases; Jan 2020

Publication Date: Jan 2020

Publication Type(s): Review

PubMedID: 31972316

Abstract:BACKGROUND: Toxoplasma gondii infection, if acquired as an acute infection during pregnancy, can have substantial adverse effects on mothers, fetuses and newborns. Latent toxoplasmosis also causes a variety of pathologies and has been linked to adverse effects on pregnancy. OBJECTIVE(S): Here, we present results of a comprehensive systematic review and meta-analysis of the global prevalence of latent toxoplasmosis in pregnant women. DATA SOURCE: We searched PubMed, EMBASE, Web of Science, SciELO and Scopus databases for relevant studies that were published between 1 January 1988 and 20 July 2019. STUDY ELIGIBILITY CRITERIA: All population-based, cross-sectional and longitudinal studies reporting the prevalence of latent toxoplasmosis in healthy pregnant women were considered for inclusion. PARTICIPANTS: Pregnant women who were tested for prevalence of latent toxoplasmosis. None. METHOD(S): We used a random effects model to calculate pooled prevalence estimates with 95% confidence intervals (CIs). We grouped prevalence data according to the geographic regions defined by the World Health Organization (WHO). Multiple subgroup and meta-regression analyses were performed. RESULT(S): In total, 311 studies with 320 relevant data sets representing 1,148,677 pregnant women from 91 countries were eligible for inclusion in the meta-analysis. The global prevalence of latent toxoplasmosis in pregnant women was estimated at 33.8% (95% CI, 31.8-35.9%; 345,870/1,148,677). South America had the highest pooled prevalence (56.2%; 50.5-62.8%) of latent toxoplasmosis in pregnant women, whereas the Western Pacific region had the lowest prevalence (11.8%; 8.1-16.0%). A significantly higher prevalence of latent toxoplasmosis was associated with countries with low income and low human development indices ($P < 0.001$). CONCLUSION(S): Our results indicate a high level of latent toxoplasmosis in pregnant women, especially in some low- and middle-income countries of Africa and South America, although the local prevalence varied markedly. These results suggest a need for improved prevention and control efforts to reduce the health risks to women and newborns. Copyright © 2020 European Society of Clinical Microbiology and Infectious Diseases. Published by Elsevier Ltd. All rights reserved.

Database: EMBASE

3. Acute Toxoplasma infection in pregnant women worldwide: A systematic review and meta-analysis.

Author(s): Rostami, Ali; Riahi, Seyed Mohammad; Contopoulos-Ioannidis, Despina G; Gamble, H Ray; Fakhri, Yadolah; Shiadeh, Malihe Nouroollahpour; Foroutan, Masoud; Behniafar, Hamed; Taghipour, Ali; Maldonado, Yvonne A; Mokdad, Ali H; Gasser, Robin B

Source: PLoS neglected tropical diseases; Oct 2019; vol. 13 (no. 10); p. e0007807

Publication Date: Oct 2019

Publication Type(s): Meta-analysis Journal Article Systematic Review

PubMedID: 31609966

Available at [PLoS neglected tropical diseases](#) - from Europe PubMed Central - Open Access

Available at [PLoS neglected tropical diseases](#) - from Public Library of Science (PLoS)

Available at [PLoS neglected tropical diseases](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [PLoS neglected tropical diseases](#) - from Unpaywall

Abstract:BACKGROUND Acute Toxoplasma infection (ATI) during pregnancy, if left untreated, can cause severe adverse outcomes for the fetus and newborn. Here, we undertook a meta-analysis to estimate the worldwide prevalence of ATI in pregnant women. METHODS We searched international databases for studies published between January 1988 and November 2018. We included population-based cross-sectional and prospective cohort studies that reported the prevalence of ATI in pregnant women. Data were synthesized using a random effect model to calculate the overall prevalence of ATI (with a 95% CI) in six WHO regions and globally. We also performed linear meta-regression analyses to investigate associations of maternal, socio-demographic, geographical and climate parameters with the prevalence of ATI. RESULTS In total, 217 studies comprising 902,228 pregnant women across 74 countries were included in the meta-analysis. The overall prevalence of ATI in pregnant women globally was 1.1% (95% CI: 0.9-1.2%). In studies where more strict criteria for ATI were used, the overall prevalence was 0.6% (95% CI: 0.4-0.7%). The prevalence was highest in the Eastern Mediterranean region (2.5%; 95% CI: 1.7-3.4%) and lowest in the European region (0.5%; 95% CI: 0.4-0.7%). A significantly higher prevalence of ATI was found in countries with lower income levels ($P = 0.027$), lower human development indices ($P = 0.04$), higher temperatures ($P = 0.02$) and lower latitudes ($P = 0.005$) and longitudes ($P = 0.02$). CONCLUSION The risk of acquiring ATI during gestation is clinically important and preventive measures to avoid exposure of pregnant women to Toxoplasma infection should be strictly applied.

Database: Medline

4. Approach to ocular toxoplasmosis including pregnant women.

Author(s): Cortes, Jorge A.; Roncancio, Alvaro; Uribe, Luis Guillermo; Cortes-Luna, Carlos Fernando; Montoya, Jose G.; Cortés, Jorge A; Roncancio, Álvaro; Cortés-Luna, Carlos Fernando; Montoya, José G

Source: Current Opinion in Infectious Diseases; Oct 2019; vol. 32 (no. 5); p. 426-434

Publication Date: Oct 2019

Publication Type(s): Periodical

PubMedID: NLM31313714

Available at [Current opinion in infectious diseases](#) - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Abstract: Purpose Of Review: To discuss available information on the effectiveness of anti-toxoplasma therapy for ocular toxoplasmosis and to provide clinicians with a practical approach to the disease. Recent Findings: Only eleven randomized studies were identified. In the three studies for acute retinitis, there was a clear trend in favor of treatment. In the two studies for the prevention of recurrences, trimethoprim-sulfamethoxazole prophylaxis was superior to placebo. In the six studies comparing different regimens, there was no statistically significant difference between the regimens. In the setting of acute posterior uveitis suspected to be caused by toxoplasma, serological testing should always be obtained, and anti-toxoplasma drug treatment, and corticosteroids should be instituted for at least 6 weeks. Toxoplasmic chorioretinitis during pregnancy represents a particular challenge. Summary: Treatment with at least two drugs and corticosteroids should be offered to patients with active toxoplasmic chorioretinitis. Pregnant women with confirmed acute infection and concomitant acute retinitis should be treated for the ocular lesion(s) and to prevent vertical transmission. Pregnant women with chronic Toxoplasma infection acquired prior to gestation and concomitant retinitis by reactivation should be treated for the retinitis and monitored for vertical transmission.

Database: CINAHL

5. Toxoplasma Serology Status and Risk of Miscarriage, A Case-Control Study among Women with A History of Spontaneous Abortion.

Author(s): Kheirandish, Farnaz; Ezatpour, Behrouz; Fallahi, Shirzad; Tarahi, Mohammad Javad; Hosseini, Pardis; Rouzbahani, Arian Karimi; Tabaei, Seyyed Javad Seyyed; Akbari, Soheila

Source: International Journal of Fertility & Sterility; Oct 2019; vol. 13 (no. 3); p. 184-189

Publication Date: Oct 2019

Publication Type(s): Academic Journal

Available at [International journal of fertility & sterility](#) - from Europe PubMed Central - Open Access

Available at [International journal of fertility & sterility](#) - from ProQuest (Health Research Premium) - NHS Version

Abstract:Background: Toxoplasma gondii is one of the major causes of abortion in pregnant women. Most cases of abortion occur in the acute phase of infection and early pregnancy. The purpose of this study was to investigate the association between spontaneous abortion and seropositive status of toxoplasmosis in women with first-time spontaneous abortion. Materials and Methods: This research is a case-control study on 240 serum samples from women experiencing spontaneous abortion for the first time as the case group, and 240 serum samples from women who had a normal delivery with no history of abortion as the control group. The level of anti-Toxoplasma gondii IgM and IgG antibodies were assessed in serum samples using ELISA. To separate the acute and chronic infections, all IgM-positive samples in both groups and IgG-positive samples of the case group were examined using IgG avidity. Results: The Toxoplasma IgM antibody was detected in 3.3% (8/240) of the case group and 0.4% (1/240) of the control group, which was a statistically significant difference between the two groups [$P=0.019$, odds ratio (OR)=10.266]. Of all samples 47.5% and 46.3% of the case and control groups were positive for Toxoplasma IgG antibody, respectively. Seven out of 8 (87.5%) IgM-positive serum samples from the case group had low IgG avidity, indicating acute infections, whereas all IgG-positive sera and 1 IgM-positive serum, which was related to the control group, showed a high IgG avidity, indicating chronic infections. Conclusion: Maternal acute toxoplasmosis during pregnancy is raised as one of the factors that increase the chance of spontaneous abortion. The necessary health training, especially on the parasite transmission ways to women before marriage, as well as the serological test in women before and during pregnancy is recommended. Polymerase chain reaction (PCR) and IgG avidity assays should be performed in the medical diagnostic laboratories for accurate distinguishing of the initial infection of toxoplasmosis in the pregnant women.

Database: CINAHL

6. Treatment of toxoplasmosis: Current options and future perspectives

Author(s): Konstantinovic N.; Stajner T.; Guegan H.; Belaz S.; Robert-Gangneux F.

Source: Food and Waterborne Parasitology; Jun 2019; vol. 15

Publication Date: Jun 2019

Publication Type(s): Review

Available at [Food and waterborne parasitology \(Online\)](#) - from Unpaywall

Abstract:Toxoplasmosis is a worldwide parasitic disease infecting about one third of humans, with possible severe outcomes in neonates and immunocompromised patients. Despite continuous and successful efforts to improve diagnosis, therapeutic schemes have barely evolved since many years. This article aims at reviewing the main clinical trials and current treatment practices, and at addressing future perspectives in the light of ongoing researches. Copyright © 2019 The Authors

Database: EMBASE

7. How does toxoplasmosis affect the maternal-foetal immune interface and pregnancy?

Author(s): Borges M.; Brito C.; Teixeira N.; Magalhaes Silva T.; Roberts C.W.

Source: Parasite Immunology; Mar 2019; vol. 41 (no. 3)

Publication Date: Mar 2019

Publication Type(s): Review

PubMedID: 30471137

Available at [Parasite immunology](#) - from Wiley Online Library

Available at [Parasite immunology](#) - from IngentaConnect - Open Access

Abstract: *Toxoplasma gondii* is a zoonotic parasite which, depending on the geographical location, can infect between 10% and 90% of humans. Infection during pregnancy may result in congenital toxoplasmosis. The effects on the foetus vary depending on the stage of gestation in which primary maternal infection arises. A large body of research has focused on understanding immune response to toxoplasmosis, although few studies have addressed how it is affected by pregnancy or the pathological consequences of infection at the maternal-foetal interface. There is a lack of knowledge about how maternal immune cells, specifically macrophages, are modulated during infection and the resulting consequences for parasite control and pathology. Herein, we discuss the potential of *T. gondii* infection to affect the maternal-foetal interface and the potential of pregnancy to disrupt maternal immunity to *T. gondii* infection. Copyright © 2018 John Wiley & Sons Ltd

Database: EMBASE

8. Congenital toxoplasmosis: An overview of the neurological and ocular manifestations.

Author(s): Khan, Khadija; Khan, Wajihullah

Source: Parasitology international; Dec 2018; vol. 67 (no. 6); p. 715-721

Publication Date: Dec 2018

Publication Type(s): Journal Article Review

PubMedID: 30041005

Abstract: *Toxoplasma gondii* is an obligate intracellular parasite which is known to infect one-third of the total world population chronically though it is asymptomatic in immunocompetent patients. However, in an immunocompromised patient or an infected fetus, it may cause devastating effects. The parasite may cross the placenta of an infected pregnant woman and probably infect the fetus congenitally. The severity of the infection depends on the gestational age at which the infection has occurred i.e., if it has occurred in the early phase, the rate of transmission is low but the severity is high if the fetus is infected and if it has occurred in the later phase then transmission rate is higher while the severity would be low. Congenital toxoplasmosis may result in non-specific consequences like abortion, intra-uterine growth restriction, jaundice, hepatosplenomegaly or even intra-uterine death. It may also result in neurological or ocular manifestations like intracranial calcifications, hydrocephalus or retinochoroiditis. The diagnosis may be done by serological screening of anti-*Toxoplasma* antibodies (IgM and IgG) while PCR of the amniotic fluid or the placenta is the confirmatory test. Acute or chronic infections may be differentiated by IgG avidity tests. The treatment regimens include spiramycin to prevent congenital transmission from an infected mother, pyrimethamine, sulfadoxine and folinic acid to treat the infected fetus, CSF shunting for the treatment of hydrocephalus and a combination of pyrimethamine, azithromycin, and corticosteroids for treating ocular toxoplasmosis.

Database: Medline

9. Global initiative for congenital toxoplasmosis: an observational and international comparative clinical analysis

Author(s): El Bissati K.; Levigne P.; Peyron F.; Lykins J.; Adlaoui E.B.; Laboudi M.; El Mansouri B.; Rhajaoui M.; Seghrouchni F.; Barkat A.; Berraho A.; Ibrahimi A.; Quinn F.; Murugesan M.; Gomez-Marín J.E.; McLeod R.

Source: Emerging Microbes and Infections; Dec 2018; vol. 7 (no. 1)

Publication Date: Dec 2018

Publication Type(s): Review

PubMedID: 30262847

Available at [Emerging microbes & infections](#) - from Europe PubMed Central - Open Access

Available at [Emerging microbes & infections](#) - from Nature (Open Access)

Available at [Emerging microbes & infections](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [Emerging microbes & infections](#) - from Unpaywall

Abstract: Globally, congenital toxoplasmosis remains a significant cause of morbidity and mortality, and outbreaks of infection with *T. gondii* represent a significant, emerging public health burden, especially in the developing world. This parasite is a threat to public health. Disease often is not recognized and is inadequately managed. Herein, we analyze the status of congenital toxoplasmosis in Morocco, Colombia, the United States, and France. We identify the unique challenges faced by each nation in the implementation of optimal approaches to congenital toxoplasmosis as a public health problem. We suggest that developed and developing countries use a multipronged approach, modeling their public health management protocols after those in France. We conclude that education, screening, appropriate treatment, and the development of novel modalities will be required to intervene successfully in caring for individuals with this infection. Gestational screening has been demonstrated to be cost-effective, morbidity-sparing, and life-saving. Recognition of the value and promise of public health interventions to prevent human suffering from this emerging infection will facilitate better patient and societal outcomes. Copyright © 2018, The Author(s).

Database: EMBASE

10. Hearing Disorders in Congenital Toxoplasmosis: A Literature Review.

Author(s): Corrêa, Camila de Castro; Maximino, Luciana Paula; Weber, Silke Anna Theresa

Source: International archives of otorhinolaryngology; Jul 2018; vol. 22 (no. 3); p. 330-333

Publication Date: Jul 2018

Publication Type(s): Journal Article Review

PubMedID: 29983776

Available at [International archives of otorhinolaryngology](#) - from Europe PubMed Central - Open Access

Available at [International archives of otorhinolaryngology](#) - from Unpaywall

Abstract:Introduction Several studies show correlations between congenital toxoplasmosis and hearing loss, with a broad diversity of levels of hearing loss and specifications of hearing disorders. Objective To describe the studies found in the literature regarding hearing disorders in congenital toxoplasmosis. Data Synthesis A literature review was conducted on the Lilacs, SciELO, PubMed and Scopus databases by combining the following keywords: congenital toxoplasmosis and hearing . Based on this search strategy, 152 papers were found, the majority published on the Scopus and PubMed databases from 1958 to 2015. After the application of the inclusion criteria, 8 articles published between 1980 and 2015 were included in the present study. Conclusion This review showed a moderate evidence of the association between hearing disorders and congenital toxoplasmosis, which is characterized by sensorineural hearing loss. However, there are gaps in the description of the specific characteristics of the type and level of hearing loss, or of other possible disorders involved in the auditory processing.

Database: Medline

11. An updated literature review on maternal-fetal and reproductive disorders of *Toxoplasma gondii* infection.

Author(s): Fallahi, S; Rostami, A; Nourollahpour Shiadeh, M; Behniafar, H; Paktinat, S

Source: Journal of gynecology obstetrics and human reproduction; Mar 2018; vol. 47 (no. 3); p. 133-140

Publication Date: Mar 2018

Publication Type(s): Journal Article Review

PubMedID: 29229361

Abstract:BACKGROUND *Toxoplasma gondii* infection is one of the most prevalent infectious disease with worldwide distribution. Congenital toxoplasmosis is annually responsible for 1.20 million disability-adjusted life years around the world, but often it is overlooked many countries. METHODS We performed an updated review to summarize the current researches on fetal, neonatal and maternal consequences of *T. gondii* infection and also adverse effects of toxoplasmosis on women reproductive organs. RESULT *T. gondii* infection could be cause of several abnormalities from hydrocephalus, microcephaly, deafness, abortion and still birth in fetal to psychomotor retardation, intellectual disability, hearing loss, slower postnatal motor development during the first year of life; and chorioretinitis, cryptogenic epilepsy and autism spectrum disorders in newborns. Moreover, this infection is related with neuropsychiatric disorders such as anxiety, schizophrenia spectrum disorders, depression, decreased weight, autoimmune thyroid diseases, self-directed violence, violent suicide attempts in mothers. This literature review emphasized that toxoplasmosis could be an important neglected factor endometritis, ovarian dysfunction, impaired folliculogenesis,

ovarian and uterine atrophy, decrease in reproductive organs weight and reproductive performance in women. We reviewed role of the immunological profile such as pro-inflammatory cytokines and hormonal changes as main potential mechanisms related to this infection and development of maternal-fetal and reproductive disorders. **CONCLUSION.** gondii is associated with several brain related disorders in both mothers and newborns, and also it is cause of several abnormalities in reproductive organs. Early diagnosis and treatment of the infection could be effective to significantly improve the clinical outcome.

Database: Medline

12. Fetal central nervous system and infectious diseases

Author(s): Masini L.; Apicella M.; De Luca C.; Lanzone A.; De Santis M.; Valentini P.; Manfredi R.

Source: Donald School Journal of Ultrasound in Obstetrics and Gynecology; 2017; vol. 11 (no. 4); p. 314-327

Publication Date: 2017

Publication Type(s): Review

Available at [Donald School Journal of Ultrasound in Obstetrics and Gynecology](#) - from Unpaywall

Abstract:Maternal infectious diseases are frequent complications of pregnancy and can cause negative outcomes. Perinatal infections can cause serious damage to fetal central nervous system (CNS), but incidence of symptomatic congenital infections at birth is low. Complete and multidisciplinary (obstetric, infectologist, microbiologist, neonatologist/pediatrician, psycholo-gist) evaluation of the pregnant women is crucial to define fetal prognosis. The ultrasound (US) surveillance has an irreplaceable role in identifying serious fetal damage and complications. Complete evaluation of the fetus in selected cases needs to be integrated with invasive prenatal diagnosis, particularly amniocentesis, which has optimal predictive values in excluding vertical transmission, and fetal magnetic resonance imaging (MRI), which can add important anatomical detail when fetal CNS damage is suspected. Congenital infections, furthermore, need to be considered in differential diagnosis of some common abnormal CNS findings at prenatal US. With the present review, we intend to provide an overview of the major perinatal infections and the role of US diagnosis in their assessment to recognize fetal CNS damage. We highlight the most recognizable syndromes due to congenital infections by linking etiopathogenesis with pathology and imaging. In particular, we focus on US diagnostic and prognostic values in relation to other invasive and noninvasive prenatal diagnosis options and summarize up-to-date recommendations on US evaluation of most common findings. Cytomegalovirus (CMV) is the most common cause of congenital infection, while Toxoplasmosis is the most preventable cause of infectious CNS damage; rubella, varicella virus, and herpes viruses, even if rarely, may be responsible for extremely serious fetal damage, while Zika virus is an emerging concern on global scale. Copyright © 2018, Jaypee Brothers Medical Publishers (P) Ltd. All rights reserved.

Database: EMBASE

13. Fetomaternal and Pediatric Toxoplasmosis

Author(s): Oz H.S.

Source: Journal of Pediatric Infectious Diseases; Dec 2017; vol. 12 (no. 4); p. 202-208

Publication Date: Dec 2017

Publication Type(s): Review

Available at [Journal of Pediatric Infectious Diseases](#) - from Unpaywall

Abstract: Toxoplasmosis is one of the most important causes of foodborne illnesses and inflammatory complications, as well as congenital disorders. Promiscuous *Toxoplasma* is transmitted by contaminated food and animal produce, water, vegetations, fruits, and sexually through semen. *Toxoplasma* infects nucleated cells with a unique tropism for muscles and central nervous system and a mind bugging malicious effect. Pregnant women with acute or reactivated toxoplasmosis can transmit *Toxoplasma* via transplacental transmission to the fetus. The severity of congenital toxoplasmosis depends on the gestation period, as infection in early pregnancy causes more severe consequences. Congenital toxoplasmosis complications include miscarriage, encephalitis, neurological retardation, mental illnesses, auditory, and visual inflammatory disorders, cardiovascular abnormalities, and pains. Current therapies are inefficient for congenital and chronic toxoplasmosis or have severe side effects with life-threatening complications. There is an urgent need for effective and safe therapeutic modalities to treat complications of toxoplasmosis and effective vaccines to eliminate the infectious agent. This investigation will discuss the pathogenesis of fetomaternal, congenital, and pediatric toxoplasmosis, the currently available therapies in practice, and explore those therapeutic modalities in experimental stages for promising future trials. Copyright © 2017 by Georg Thieme Verlag KG, Stuttgart, New York.

Database: EMBASE

14. Congenital Toxoplasmosis.

Author(s): Guha, Rahul; Miley, Lauren; Aspiri, Madison; Dhamija, Radhika

Source: Pediatric Neurology; May 2017; vol. 70 ; p. 81-82

Publication Date: May 2017

Publication Type(s): Academic Journal

PubMedID: NLM28254246

Database: CINAHL

15. Is *Toxoplasma gondii* type related to clinical outcome in human congenital infection?

Systematic and critical review

Author(s): Rico-Torres C.P.; Vargas-Villavicencio J.A.; Correa D.

Source: European Journal of Clinical Microbiology and Infectious Diseases; Jul 2016; vol. 35 (no. 7); p. 1079-1088

Publication Date: Jul 2016

Publication Type(s): Review

Available at [European journal of clinical microbiology & infectious diseases : official publication of the European Society of Clinical Microbiology](#) - from SpringerLink - JUSTICE Consortium Package

Available at [European journal of clinical microbiology & infectious diseases : official publication of the European Society of Clinical Microbiology](#) - from ProQuest (Health Research Premium) - NHS Version

Abstract:In human congenital toxoplasmosis the effects of parasite burden and pregnancy time at infection on clinical outcome are well known, but there is controversy regarding the role of *Toxoplasma gondii* type. Through a systematic review of the literature, we aimed to discern if *T. gondii* type has a role on clinical outcome in human congenital toxoplasmosis. We built up a database of congenital toxoplasmosis from reports of cases, case series and screening-based cohorts, which had information about parasite type, gestation time at maternal infection and/or clinical outcome in the product. Then, we obtained frequencies for loci used to genotype geographical origin of cases and types found. Also, odds ratios were calculated for association between time of maternal infection or parasite type on outcome. Type II parasites were the most common in Europe, Asia and Africa, while in America there were mainly atypical strains. More newborns with clinical problems were born from mothers infected during the first half of gestation than from those acquiring the parasite after week 24, regardless of parasite genotype (92.9 vs. 16.1 %, OR = 67.9, CI95 25.4-181.6). Type I and atypical parasites were associated with clinical problems as opposed to types II and III, regardless of pregnancy period at infection (86.9 vs. 72.9 %, OR = 2.47, CI95 1.1-5.4). A significant and remarkable tendency of type I parasites to be present during early pregnancy was also observed (94.4 vs. 5.6 %, $P < 0.009$). In addition to parasite burden and period of gestation, *T. gondii* genotype seems involved in CT clinical outcome. Copyright © 2016, Springer-Verlag Berlin Heidelberg.

Database: EMBASE

16. Toxoplasmosis, Parvovirus, and Cytomegalovirus in Pregnancy.

Author(s): Feldman, Deborah M; Keller, Rebecca; Borgida, Adam F

Source: Clinics in laboratory medicine; Jun 2016; vol. 36 (no. 2); p. 407-419

Publication Date: Jun 2016

Publication Type(s): Journal Article Review

PubMedID: 27235921

Abstract:There are several infections in adults that warrant special consideration in pregnant women given the potential fetal consequences. Among these are toxoplasmosis, parvovirus B19, and cytomegalovirus. These infections have an important impact on the developing fetus, depending on the timing of infection. This article reviews the modes of transmission as well as maternal and neonatal effects of each of these infections. In addition, the article outlines recommended testing, fetal surveillance, and treatment where indicated.

Database: Medline

17. Toxoplasmosis-associated abortion and stillbirth in Tehran, Iran.

Author(s): Ghasemi, Fatemeh Sadat; Rasti, Sima; Piroozmand, Ahmad; Bandehpour, Mojgan; Kazemi, Bahram; Mousavi, Seyed Gholam Abbas; Abdoli, Amir

Source: Journal of Maternal-Fetal & Neonatal Medicine; Jan 2016; vol. 29 (no. 2); p. 248-251

Publication Date: Jan 2016

Publication Type(s): Academic Journal

PubMedID: NLM25564725

Abstract: Objectives: This study was aimed to evaluate the role of toxoplasmosis in etiology of abortion and stillbirth based on molecular and serological techniques. Material and Methods: A total of 110 pregnant women with abortion and stillbirth were enrolled as the case group, and 110 pregnant women with normal delivery were enrolled as the control group. Serological and molecular detections of *Toxoplasma gondii* were assessed by ELISA and PCR methods. Results: The seroprevalence of IgG was 25.5% in the case group (26.8% in abortion and 21.4% in stillbirth) and 26.4% in the control group. IgM seropositivity was detected in 2.7% of the case group (3.6% in abortion and 0% in stillbirth) and 0.9% of the control group ($p = 0.37$). *Toxoplasma gondii* DNA was detected in 6.4% of the case group (7.3% in abortion and 3.6% in stillbirth) and 1.8% of the control group by PCR ($p = 0.17$). The major risk factor of congenital toxoplasmosis was the history of eating undercooked meat ($p = 0.06$). Conclusion: Results of this study revealed that the rate of PCR positive in women with abortion and stillbirth was 3.7 times higher than that in normal delivery, but the difference was not statistically significant. These findings suggest that toxoplasmosis can be involved in etiology of abortion and stillbirth.

Database: CINAHL

18. Congenital Toxoplasmosis: A Review.

Author(s): Hampton, Marissa Martinez

Source: Neonatal network : NN; 2015; vol. 34 (no. 5); p. 274-278

Publication Date: 2015

Publication Type(s): Journal Article Review

PubMedID: 26802827

Available at [Neonatal network : NN](#) - from ProQuest (Health Research Premium) - NHS Version

Abstract: Acute infection of toxoplasmosis during pregnancy is detrimental to the developing fetus. In the United States, approximately 1 in 10,000 live births are affected by congenital toxoplasmosis. Although multifactorial in etiology, maternal infection is primarily attributed to the consumption of contaminated meat or water. Infection and transmission to the fetus may result in devastating neurologic impairment. Screening methods for all pregnant women should be implemented in routine prenatal care. This article will highlight the inherent dangers of congenital toxoplasmosis, while including general care of the fetus for prevention of transmission, medical management, and long-term outcomes.

Database: Medline

19. Diagnosing congenital toxoplasmosis: Where are we? A systematic review

Author(s): Dos Santos M.D.S.V.; Da Silva C.G.L.; De Oliveira P.N.L.; Ribeiro K.D.B.; Teixeira A.G.; Santos M.F.A.; Lopes V.H.G.; Rolim-Neto M.L.; Bianco B.; Grumach A.S.

Source: International Archives of Medicine; 2015; vol. 8 (no. 1)

Publication Date: 2015

Publication Type(s): Review

Available at [International Archives of Medicine](#) - from Free Medical Journals . com

Available at [International Archives of Medicine](#) - from Unpaywall

Abstract: Purpose: Compile information on laboratory methods for diagnosis of congenital toxoplasmosis, considering the tests conducted since the gestational stage until the child period. Method(s): A systematic review of 01.01.2006 to 31.12.2013 was held by VHL (Virtual Health Library). The search was performed with the descriptors "toxoplasmosis" and "diagnosis. The selected articles were indexed in MEDLINE. The information pertinent to the study was selected, categorized and analyzed. Of the 186 articles found, 41 met the eligibility criteria. Result(s): Laboratory tests are based on the presence of antibodies IgM and IgG anti-Toxoplasma gondii, in this sense it is important to correctly interpret serology, because the detection of specific antibodies is often delayed by the presence of maternal IgG or late production of specific antibodies in newborns. Molecular techniques (PCR) have emerged as alternative due to its higher sensitivity and specificity in diagnosing instruments, given the ability to detect parasite DNA and non-dependence of the immune response of the patient, such as serological tests. Conclusion(s): The need for early treatment of congenital toxoplasmosis in order to avoid sequelae justifies the search for more sensitive and specific laboratory tests in early detection of the parasite. The integration among the different levels of care in the public health system is essential for obtaining effective control of toxoplasmosis in pregnant women. Copyright © Under License of Creative Commons Attribution 3.0 License.

Database: EMBASE

20. Understanding Toxoplasma infection in the UK.

Author(s): ROBERTS, CRAIG W.

Source: Nursing in Practice: The Journal for Today's Primary Care Nurse; Sep 2015 (no. 86); p. 1-3

Publication Date: Sep 2015

Publication Type(s): Academic Journal

Database: CINAHL

21. Practice bulletin no. 151: Cytomegalovirus, parvovirus B19, varicella zoster, and toxoplasmosis in pregnancy.

Author(s):

Source: Obstetrics & Gynecology; Jun 2015; vol. 125 (no. 6); p. 1510-1525

Publication Date: Jun 2015

Publication Type(s): Academic Journal

PubMedID: NLM26000539

Available at [Obstetrics & Gynecology](#) - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Available at [Obstetrics & Gynecology](#) - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location] : Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

Database: CINAHL

22. TORCH infections.

Author(s): Neu, Natalie; Duchon, Jennifer; Zachariah, Philip

Source: Clinics in perinatology; Mar 2015; vol. 42 (no. 1); p. 77-104

Publication Date: Mar 2015

Publication Type(s): Journal Article Review

PubMedID: 25677998

Abstract: TORCH infections classically comprise toxoplasmosis, Treponema pallidum, rubella, cytomegalovirus, herpesvirus, hepatitis viruses, human immunodeficiency virus, and other infections, such as varicella, parvovirus B19, and enteroviruses. The epidemiology of these infections varies; in low-income and middle-income countries, TORCH infections are major contributors to prenatal, perinatal, and postnatal morbidity and mortality. Evidence of infection may be seen at birth, in infancy, or years later. For many of these pathogens, treatment or prevention strategies are available. Early recognition, including prenatal screening, is key. This article covers toxoplasmosis, parvovirus B19, syphilis, rubella, hepatitis B virus, hepatitis C virus, and human immunodeficiency virus.

Database: Medline

23. Maternal and congenital toxoplasmosis, currently available and novel therapies in horizon.

Author(s): Oz, Helieh S

Source: Frontiers in microbiology; 2014; vol. 5 ; p. 385

Publication Date: 2014

Publication Type(s): Journal Article Review

PubMedID: 25104952

Available at [Frontiers in microbiology](#) - from Europe PubMed Central - Open Access

Available at [Frontiers in microbiology](#) - from Free Medical Journals . com

Available at [Frontiers in microbiology](#) - from Unpaywall

Abstract:Over one billion people worldwide are predicted to harbor Toxoplasma infection frequently with unknown lifelong health consequences. Toxoplasmosis is an important cause of foodborne, inflammatory illnesses, as well as congenital abnormalities. Ubiquitous Toxoplasma has a unique tropism for central nervous system with a mind-bugging effect and is transmitted sexually through semen. Currently available therapies are ineffective for persistent chronic disease and congenital toxoplasmosis or have severe side effects which may result in life-threatening complications. There is an urgent need for safe and effective therapies to eliminate or treat this cosmopolitan infectious and inflammatory disease. This investigation discusses pathogenesis of maternal and congenital toxoplasmosis, the currently available therapies in practice, and the experimental therapeutic modalities for promising future trials.

Database: Medline

24. Congenital Toxoplasmosis.

Author(s): McAuley, James B

Source: Journal of the Pediatric Infectious Diseases Society; Sep 2014; vol. 3

Publication Date: Sep 2014

Publication Type(s): Journal Article

PubMedID: 25232475

Available at [Journal of the Pediatric Infectious Diseases Society](#) - from Oxford Journals - Medicine

Available at [Journal of the Pediatric Infectious Diseases Society](#) - from HighWire - Free Full Text

Available at [Journal of the Pediatric Infectious Diseases Society](#) - from Unpaywall

Abstract:Toxoplasmosis is caused by infection with the parasite Toxoplasma gondii. It is one of the most common parasitic infections in humans and is most typically asymptomatic. However, primary infection in a pregnant woman can cause severe and disabling disease in the developing fetus. Recent developments have included increased understanding of the role of parasite genotype in determining infectivity and disease severity. Risk factors for acquisition of infection have been better defined, and the important role of foodborne transmission has been further delineated. In addition, strategies have emerged to decrease mother-to-child transmission through prompt identification of acutely infected pregnant women followed by appropriate treatment. Refined diagnostic tools, particularly the addition of immunoglobulin G avidity testing, allow for more accurate timing of maternal infection and hence better decision making during pregnancy. Congenitally infected children can be treated, beginning in utero and continuing through the first year of life, to ameliorate the severity of disease. However, despite these many advances in our understanding of congenital toxoplasmosis prevention and treatment, significant areas of study remain: we need better drugs, well defined strategies for screening of pregnant women, improved food safety, and improved diagnostic tests.

Database: Medline

25. Enhanced surveillance for toxoplasmosis in England and Wales, 2008-2012.

Author(s): Halsby, K; Guy, E; Said, B; Francis, J; O'Connor, C; Kirkbride, H; Morgan, D

Source: Epidemiology & Infection; Aug 2014; vol. 142 (no. 8); p. 1653-1660

Publication Date: Aug 2014

Publication Type(s): Academic Journal

PubMedID: NLM24093517

Available at [Epidemiology and Infection](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [Epidemiology and Infection](#) - from Unpaywall

Abstract:SUMMARY A report on Toxoplasma gondii by the UK Advisory Committee on the Microbiological Safety of Food recommended that more accurate figures on the burden of disease in the UK are needed. We present the first 5 years of data from an enhanced surveillance scheme for toxoplasmosis in England and Wales. Between 2008 and 2012, 1824 cases were reported, with an average of 365 each year. There were 1109 immunocompetent cases, the majority presenting with lymphadenopathy, and 364 immunosuppressed cases, with central nervous system and systemic symptoms most frequently reported. There were also 190 pregnant and 33 congenital cases. Of the pregnant cases, 148 were asymptomatic (probably detected during screening), while 28 suffered a fetal loss or stillbirth. The enhanced surveillance system has led to an improvement in the detection of toxoplasmosis in England and Wales. However, numbers are still likely to be an underestimate, biasing towards the more severe infections.

Database: CINAHL

26. Managing infections in pregnancy.

Author(s): Ville, Yves; Leruez-Ville, Marianne

Source: Current opinion in infectious diseases; Jun 2014; vol. 27 (no. 3); p. 251-257

Publication Date: Jun 2014

Publication Type(s): Journal Article Review

PubMedID: 24781057

Available at [Current opinion in infectious diseases](#) - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Abstract:PURPOSE OF REVIEWThe management of infection in pregnancy aims mainly at improving the diagnosis and prognosis of congenital infections. Over 400 publications have dealt with this issue over the last 2 years, taking advantage of progress made not only in the epidemiological knowledge of infections but also neonatal treatment and prenatal diagnosis and interventions. The focus remains largely on viral and parasitic infections, namely cytomegalovirus (CMV) and toxoplasmosis, with the appearance of influenza as part of recent and severe outbreaks.RECENT FINDINGSThe prevalence of CMV infection is stable. The prediction of foetal infection from primary maternal infection is becoming more accurate and therapeutic approaches are promising, including the development of a vaccine in the near future. The prevalence of toxoplasmosis is decreasing markedly in Europe weakening the effect of preventive measures and questioning the rationale for screening. In addition, the efficacy of prenatal treatment is still under scrutiny, although no appropriate randomized controlled trial (RCT) has been undertaken.SUMMARYAccurate dating of maternal primary infection is key to prenatal management including foetal and perinatal surveillance

and therapy. Heightened prenatal surveillance following influenza infection in early pregnancy is warranted by an apparent increased risk of nonchromosomal congenital malformations in large epidemiological studies, likely as an effect of maternal hyperthermia.

Database: Medline

27. Congenital toxoplasmosis.

Author(s): Kieffer, François; Wallon, Martine

Source: Handbook of clinical neurology; 2013; vol. 112 ; p. 1099-1101

Publication Date: 2013

Publication Type(s): Journal Article Review

PubMedID: 23622316

Abstract: Congenital toxoplasmosis results from the transplacental transmission of the parasite *Toxoplasma gondii* after a maternal infection acquired in pregnancy. Prevalence of congenital infection ranges from 0.1 to 0.3 per 1000 live births. The maternal-fetal transmission rate increases with gestational age at maternal seroconversion, from less than 15% at 13 weeks of gestation to over 70% at 36 weeks. Conversely, the later the maternal infection, the lower the risk of symptomatic congenital infection (infections acquired during the third trimester are most often asymptomatic at birth). Prenatal diagnosis is currently performed by PCR analysis in amniotic fluid. Antenatal management and treatment vary considerably among countries. In some European countries, maternal infections are detected through serological screening allowing a prompt treatment with spiramycin, which is expected to reduce the risk of vertical transmission. If PCR analysis in amniotic fluid is positive or if maternal infection was acquired in the third trimester of pregnancy, a combination with pyrimethamine and sulphonamide is given until delivery. Benefits of antenatal treatments remain controversial. Infected newborns are prescribed pyrimethamine and sulphonamide for 12 months. Despite antenatal and postnatal treatment, chorioretinitis can occur at any age (prevalence >20% at 10 years of age): long-term ophthalmological follow-up remains necessary.

Database: Medline

28. Congenital toxoplasmosis

Author(s): Kravetz J.

Source: BMJ clinical evidence; Aug 2013; vol. 2013

Publication Date: Aug 2013

Publication Type(s): Review

PubMedID: 23987732

Abstract:INTRODUCTION: Infection with *Toxoplasma gondii* is asymptomatic or mild in immunocompetent people and leads to lifelong immunity, but it can have serious consequences in pregnancy. About five per 1000 non-immune pregnant women may acquire toxoplasma infection, with a 10% to 100% risk of transmission to the baby. Risks of transmission to the baby are higher later in pregnancy, but risks of infection causing harm to the baby are greater earlier in pregnancy.METHODS AND OUTCOMES: We conducted a systematic review and aimed to answer the following clinical questions: What are the effects on mother and baby of treating toxoplasmosis during pregnancy to reduce risk of vertical transmission and treat fetal infection? What are the effects of treating toxoplasmosis in neonates infected with toxoplasmosis prenatally? We searched: Medline, Embase, The Cochrane Library, and other important databases up to June 2013 (Clinical Evidence reviews are updated periodically; please check our website for the most up-to-date version of this review). We included harms alerts from relevant organisations such as the US Food and Drug Administration (FDA) and the UK Medicines and Healthcare products Regulatory Agency (MHRA).RESULTS: We found six systematic reviews, RCTs, or observational studies that met our inclusion criteria. We performed a GRADE evaluation of the quality of evidence for interventions.CONCLUSIONS: In this systematic review we present information relating to the effectiveness and safety of the following interventions: antiparasitic drugs in pregnancy, and antiparasitic drugs in neonates.

Database: EMBASE

29. The global burden of congenital toxoplasmosis: a systematic review.

Author(s): Torgerson, Paul R; Mastroiacovo, Pierpaolo

Source: Bulletin of the World Health Organization; Jul 2013; vol. 91 (no. 7); p. 501-508

Publication Date: Jul 2013

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

PubMedID: 23825877

Available at [Bulletin of the World Health Organization](#) - from Europe PubMed Central - Open Access

Available at [Bulletin of the World Health Organization](#) - from Free Medical Journals . com

Available at [Bulletin of the World Health Organization](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [Bulletin of the World Health Organization](#) - from Unpaywall

Abstract:OBJECTIVETo estimate the global burden of congenital toxoplasmosis (CT), which results from infection of pregnant women with *Toxoplasma gondii*.METHODSThe authors systematically searched 9 major databases for published and unpublished sources and established direct contact with the authors of source materials. Searches were country-specific. To be included, studies had to report on the incidence of CT, on positivity to *Toxoplasma*-specific IgM in infants and pregnant women (including seroconversion results) or on positivity to *Toxoplasma*-specific IgG in the general population. Various modelling techniques were used, depending on the country-specific data available, to estimate the CT incidence and burden in each country. These data were then

synthesized into an estimate of the global incidence of CT and of the global burden of CT in disability-adjusted life years (DALYs). **FINDINGS** The global annual incidence of congenital toxoplasmosis was estimated to be 190,100 cases (95% credible interval, CI: 179,300-206,300). This was equivalent to a burden of 1.20 million DALYs (95% CI: 0.76-1.90). High burdens were seen in South America and in some Middle Eastern and low-income countries. **CONCLUSION** Congenital toxoplasmosis poses a substantial burden of poor health globally. Toxoplasmosis should be included in future updates of the global burden of disease and the corresponding data should be used to support public health interventions to reduce disease burden.

Database: Medline

30. Perinatal toxoplasmosis

Author(s): Nair I.S.

Source: Perinatology; 2012; vol. 13 (no. 3); p. 81-88

Publication Date: 2012

Publication Type(s): Review

Database: EMBASE

31. Toxoplasmosis in the fetus and newborn: an update on prevalence, diagnosis and treatment.

Author(s): Moncada, Pablo A; Montoya, Jose G

Source: Expert review of anti-infective therapy; Jul 2012; vol. 10 (no. 7); p. 815-828

Publication Date: Jul 2012

Publication Type(s): Journal Article Review

PubMedID: 22943404

Available at [Expert Review of Anti-Infective Therapy](#) - from ProQuest (Health Research Premium) - NHS Version

Abstract: *Toxoplasma gondii* is an unicellular coccidian parasite with worldwide distribution. It is estimated that more than a third of the world's population has been infected with the parasite, but seroprevalence is unevenly distributed across countries and different socioeconomic strata. The majority of newborns with congenital toxoplasmosis do not have any clinical signs of the disease at birth; however, 30-70% of those with clinical abnormalities were not detected initially, and are found to have new retinal lesions consistent with toxoplasmic chorioretinitis later in life. Congenital toxoplasmosis can also cause fetal death, stillbirths or long-term disabling sequelae, particularly among untreated infants. The disease appears to be more frequent and severe at certain latitudes. Congenital toxoplasmosis can be prevented and treated during gestation. Less severe disease is commonly reported in countries where prenatal screening and treatment have been systematically implemented. By contrast, severe disease appears to be observed primarily in infants born to untreated mothers. For definition purposes, it is best to use the term toxoplasma or *Toxoplasma gondii* infection when referring to asymptomatic patients with primary or chronic infection, and toxoplasmosis when referring to patients with symptoms or signs.

Database: Medline

32. Toxoplasmosis: diagnosis, treatment, and prevention in congenitally exposed infants.

Author(s): Kaye, Alyson

Source: Journal of pediatric health care : official publication of National Association of Pediatric Nurse Associates & Practitioners; 2011; vol. 25 (no. 6); p. 355-364

Publication Date: 2011

Publication Type(s): Journal Article Review

PubMedID: 22018426

Abstract: Toxoplasmosis is a rare disease caused by the obligate intracellular protozoan parasite, *Toxoplasma gondii*. Most persons with toxoplasmosis in the United States are asymptomatic, but if a woman is infected during pregnancy, the parasite can cross the placenta and cause congenital toxoplasmosis in the fetus. The severity of congenital toxoplasmosis depends on when in the pregnancy the mother is exposed, but it can cause ocular and central nervous system disease as well as lead to growth failure and hearing and vision abnormalities. Congenital toxoplasmosis is treated with a combination of pyrimethamine, sulfadiazine, and leucovorin. It is important for pediatric nurse practitioners to be aware of the clinical presentation and treatment of congenital toxoplasmosis.

Database: Medline

33. Toxoplasma gondii: The changing paradigm of congenital toxoplasmosis

Author(s): Lindsay D.S.; Dubey J.P.

Source: Parasitology; Dec 2011; vol. 138 (no. 14); p. 1829-1831

Publication Date: Dec 2011

Publication Type(s): Review

PubMedID: 21902872

Available at [Parasitology](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [Parasitology](#) - from Unpaywall

Abstract: Researchers have learned much concerning the population biology of *Toxoplasma gondii* over the past 2 decades. It is now apparent that many atypical genotypes exist besides the typical 3 genotypes (type I, type II and type III) first described from samples from Europe and the United States. These genotypes can differ in pathogenicity and transmissibility from the typical genotypes that have been used in the majority of scientific research over the past 70 years. These differences impact much of what we used to believe as facts about congenital toxoplasmosis (CT) and will be important in developing new recommendations for prevention of CT and the monitoring of women at risk for developing CT. The present review highlights new information on *T. gondii* genotypes and how this information will change the way we convey information about CT to pregnant women, physicians and students. Copyright © Cambridge University Press 2011.

Database: EMBASE

34. Infection-related stillbirths

Author(s): Goldenbrog R.L.; McClure E.M.; Saleem S.; Reddy U.M.

Source: The Lancet; 2010; vol. 375 (no. 9724); p. 1482-1490

Publication Date: 2010

Publication Type(s): Review

Available at [Lancet \(London, England\)](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [Lancet \(London, England\)](#) - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location] : Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

Available at [Lancet \(London, England\)](#) - from Unpaywall

Abstract:Infection is an important cause of stillbirths worldwide: in low-income and middle-income countries, 50% of stillbirths or more are probably caused by infection. By contrast, in high-income countries only 10-25% of stillbirths are caused by infection. Syphilis, where prevalent, causes most infectious stillbirths, and is the infection most amenable to screening and treatment. Ascending bacterial infection is a common cause of stillbirths, but prevention has proven elusive. Many viral infections cause stillbirths but aside from vaccination for common childhood diseases, we do not have a clear prevention strategy. Malaria, because of its high prevalence and extensive placental damage, accounts for large numbers of stillbirths. Intermittent malarial prophylaxis and insecticide-treated bednets should decrease stillbirths. Many infections borne by animals and vectors cause stillbirths, and these types of infections occur frequently in low-income countries. Research that better defines the relation between these infections and stillbirths, and develops strategies to reduce associated adverse outcomes, should play an important part in reduction of stillbirths in low-income countries.

Database: EMBASE

35. Toxoplasmosis, parvovirus, and cytomegalovirus in pregnancy.

Author(s): Feldman, Deborah M; Timms, Diane; Borgida, Adam F

Source: Clinics in laboratory medicine; Sep 2010; vol. 30 (no. 3); p. 709-720

Publication Date: Sep 2010

Publication Type(s): Journal Article Review

PubMedID: 20638583

Abstract:Several infections in adults warrant special consideration in pregnant women given the potential fetal consequences. Among these are toxoplasmosis, parvovirus B19, and cytomegalovirus. These infections have an important effect on the developing fetus depending on the timing of infection. This article reviews the modes of transmission as well as maternal and neonatal effects of each of these infections. In addition, recommended testing, fetal surveillance, and treatment where indicated are outlined.

Database: Medline

36. Infectious causes of stillbirth: A clinical perspective

Author(s): McClure E.M.; Dudley D.J.; Reddy U.M.; Goldenberg R.L.

Source: Clinical Obstetrics and Gynecology; Sep 2010; vol. 53 (no. 3); p. 635-645

Publication Date: Sep 2010

Publication Type(s): Review

PubMedID: 20661048

Available at [Clinical obstetrics and gynecology](#) - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Available at [Clinical obstetrics and gynecology](#) - from Unpaywall

Abstract: Untreated infection may cause stillbirth by several mechanisms, including direct fetal infection, placental damage, and severe maternal illness. Many bacteria, viruses, and protozoa have been associated with stillbirth. In developed countries, up to 24% of stillbirths have been attributed to infection, although with increased availability of sophisticated diagnostics and rigorous screening, it appears likely that higher numbers may actually be associated with infection. In developed countries, ascending bacterial infection is usually the most common infectious cause of stillbirth, with a number of viral infections also an important factor. Screening, prevention, and treatment of maternal infections are important to reduce stillbirth risk. © 2010, Lippincott Williams & Wilkins.

Database: EMBASE

Strategy 817001

#	Database	Search term	Results
1	Medline	exp TOXOPLASMOSIS/	19793
2	Medline	(toxoplasmosis).ti	9103
3	Medline	(1 OR 2)	20303
4	Medline	(pregna*).ti	224777
5	Medline	(congenital OR fetus OR fetal OR foetal OR neonate* OR newborn).ti	300366
6	Medline	exp "PREGNANCY COMPLICATIONS"/	421714
7	Medline	exp PREGNANCY/	882237
9	Medline	exp "FETAL DEVELOPMENT"/ OR exp "FETAL DEATH"/	115604
10	Medline	exp "FETAL DISEASES"/	68687
11	Medline	exp "INFANT, NEWBORN"/	597166
12	Medline	(4 OR 5 OR 6 OR 7 OR 9 OR 10 OR 11)	1486264
13	Medline	(3 AND 12)	4905
14	Medline	13 [DT FROM 2010] [Document type Review] [Languages English]	
15	Medline	exp "TOXOPLASMOSIS, CONGENITAL"/ [DT FROM 2010] [Document type Review] [Languages English]	53
16	EMBASE	exp TOXOPLASMOSIS/	21223
17	EMBASE	(toxoplasmosis).ti	7425

18	EMBASE	(16 OR 17)	21738
19	EMBASE	(pregna*).ti	248701
20	EMBASE	(congenital OR fetus OR fetal OR foetal OR neonate* OR newborn).ti	303958
21	EMBASE	exp "PREGNANCY COMPLICATIONS"/	119814
22	EMBASE	exp PREGNANCY/	651706
23	EMBASE	exp "FETAL DISEASES"/	114169
24	EMBASE	exp "INFANT, NEWBORN"/	518133
25	EMBASE	exp "FETUS DEVELOPMENT"/	27359
26	EMBASE	exp "FETUS DISEASE"/	114169
27	EMBASE	(19 OR 20 OR 21 OR 22 OR 23 OR 24 OR 25 OR 26)	1349915
28	EMBASE	(18 AND 27)	4601
29	EMBASE	28 [DT FROM 2010] [Publication types Review] [English language]	166
30	EMBASE	*"CONGENITAL TOXOPLASMOSIS"/ [DT FROM 2010] [Publication types Review] [English language]	26
31	EMBASE	(18 AND 25)	47
32	CINAHL	exp TOXOPLASMOSIS/	1252
33	CINAHL	(toxoplasmosis).ti	524
34	CINAHL	(32 OR 33)	1315
35	CINAHL	(pregna*).ti	60665

36	CINAHL	(congenital OR fetus OR fetal OR foetal OR neonate* OR newborn).ti	48867
37	CINAHL	exp "PREGNANCY COMPLICATIONS"/	83115
38	CINAHL	exp PREGNANCY/	190570
39	CINAHL	exp "FETAL DISEASES"/	12246
40	CINAHL	exp "PERINATAL DEATH"/	7217
41	CINAHL	exp "FETAL DEVELOPMENT"/	24482
42	CINAHL	exp "INFANT, NEWBORN"/	124979
43	CINAHL	(35 OR 36 OR 37 OR 38 OR 39 OR 40 OR 41 OR 42)	324476
44	CINAHL	(34 AND 43)	466
45	CINAHL	44 [DT FROM 2010] [Languages eng]	214