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West Middlesex University Hospital

Date: 20 January 2020
Sources Searched: Medline, Embase, CINAHL, BNI

Diarrhoea in Pregnancy

See full search strategy

Evidence Summary:

- The published literature relating to diarrhoea in pregnancy is scant.
- Diarrhoea which develops at or close to term might be a precursor to labour (Zielinski, R et al, 2015).
- In otherwise healthy individuals with abrupt onset of diarrhoea the etiology is likely to be infectious (Body, C et al, 2016).
- Hormonal changes e.g. elevated levels of prostaglandins have been hypothesised as a causal factor for diarrhoea in pregnancy.

1. Gastrointestinal Diseases in Pregnancy: Nausea, Vomiting, Hyperemesis Gravidarum, Gastroesophageal Reflux Disease, Constipation, and Diarrhea.

Author(s): Body, Cameron; Christie, Jennifer A

Source: Gastroenterology clinics of North America; Jun 2016; vol. 45 (no. 2); p. 267-283

Publication Date: Jun 2016

Publication Type(s): Journal Article Review

PubMedID: 27261898

Abstract: Many disorders of the gastrointestinal tract are common in pregnancy. Elevated levels of progesterone may lead to alterations in gastrointestinal motility which could contribute to nausea, vomiting, and/or GERD. Pregnancy-induced diarrhea may be due to elevated levels prostaglandins. This article reviews the normal physiologic and structural changes associated with pregnancy that could contribute to many of the common gastrointestinal complaints in pregnant patients. Additionally, the appropriate clinical and laboratory evaluations, other pathologic conditions that should be included in the differential, as well as the nonpharmacologic and pharmacologic therapies for each of these conditions is discussed.

Database: Medline

2. Constipation, diarrhea, and symptomatic hemorrhoids during pregnancy.

Author(s): Wald, Arnold

Source: Gastroenterology clinics of North America; Mar 2003; vol. 32 (no. 1); p. 309

Publication Date: Mar 2003

Publication Type(s): Journal Article Review

PubMedID: 12635420

Abstract: Constipation, diarrhea, and symptomatic hemorrhoids are disorders common in the general population, particularly in women. These conditions, if mild, often are self-treated with various home remedies or nonprescription preparations. Few of these patients, moreover, are referred to gastroenterologists, as primary care providers generally are confident managing these conditions, unless they are severe, refractory to conventional management, or require additional diagnostic studies.

Database: Medline

3. Constipation and diarrhea in pregnancy.

Author(s): Bonapace, E S; Fisher, R S

Source: Gastroenterology clinics of North America; Mar 1998; vol. 27 (no. 1); p. 197-211

Publication Date: Mar 1998

Publication Type(s): Journal Article Review

PubMedID: 9546090

Abstract: Constipation and diarrhea are common during pregnancy, occurring in up to one-third of women. Constipation is often the result of physiologic changes that occur during pregnancy, usually from hormonal effects on gastrointestinal motility. Diarrhea, on the other hand, is often caused by the same disorders responsible for diarrhea in the nonpregnant patient. The incidence, pathophysiology, evaluation, and treatment of constipation and diarrhea during pregnancy are reviewed in this article.

Database: Medline

4. Gastrointestinal distress in pregnancy: prevalence, assessment, and treatment of 5 common minor discomforts.

Author(s): Zielinski, Ruth; Searing, Kimberly; Deibel, Megan

Source: The Journal of perinatal & neonatal nursing; 2015; vol. 29 (no. 1); p. 23-31

Publication Date: 2015

Publication Type(s): Journal Article Review

PubMedID: 25633397

Abstract: Gastrointestinal discomforts are a very common complaint in pregnancy. In fact, most pregnant women will experience at least one discomfort. This article focuses on 5 common conditions that occur in pregnancy: gastroesophageal reflux disease, diarrhea, constipation, hemorrhoids, and pica. While these conditions do occur in men and nonpregnant women, they occur more frequently in pregnancy because of the anatomic and physiologic changes associated with gestation. The type and severity of symptoms can vary from individual to individual, making treatment a challenge for healthcare providers, particularly when caring for pregnant women because the effects of medications and other treatments on the developing fetus are often not extensively studied. While these discomforts are rarely life-threatening, they can cause significant distress and impair quality of life. The goal of this article was to provide a summary of the anatomic and physiological changes during pregnancy that contribute to the increasing incidence of these discomforts and to provide information about each condition including prevalence, symptoms, and treatment modalities.

Database: Medline

5. Gastrointestinal and Liver Disease in Pregnancy

Author(s): Boregowda G.; Shehata H.A.

Source: Bailliere's Best Practice and Research in Clinical Obstetrics and Gynaecology;

Publication Type(s): Article In Press

Available at Bailliere's Best Practice and Research in Clinical Obstetrics and Gynaecology - 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.

Abstract: This chapter on the gastrointestinal and hepatic systems in pregnancy focusses on those conditions that are frequent and troublesome (gastro-oesophageal reflux and constipation), distressing (hyperemesis gravidarum) or potentially fatal (obstetric cholestasis, acute fatty liver of pregnancy and HELLP (haemolysis, elevated liver enzymes, low platelets) syndrome). It also highlights the clinical challenge obstetricians may face in managing rare conditions such as the Budd-Chiari syndrome, liver transplantation, primary biliary cirrhosis and Wilson disease. The clinical presentation of liver and gastrointestinal dysfunction in pregnancy is not specific, and certain 'abnormalities' may represent physiological changes of pregnancy. Diagnosis and management are often difficult because of atypical symptoms, a reluctance to use invasive investigations and concerns about the teratogenicity of the medications. The best available evidence to manage these conditions is discussed in the chapter. © 2013.

Database: EMBASE

6. Streptococcal toxic shock syndrome occurring in the third trimester of pregnancy: A case report.

Author(s): Irani, Mohamad; McLaren, Rodney; Savel, Richard H.; Bogatyryova, Oksana; Khoury-Collado, Fady

Source: Journal of Obstetrics & Gynaecology Research; Oct 2017; vol. 43 (no. 10); p. 1639-1639

Publication Date: Oct 2017

Publication Type(s): Academic Journal

Available at The journal of obstetrics and gynaecology research - from Wiley Online Library

Abstract: Group A streptococcal (GAS) toxic shock syndrome (TSS) is a rare life-threatening illness. Most reported cases have occurred in the post-partum period. Here, we report a rare case of a primigravid who developed GAS TSS in the third trimester. We also review the potential preventive measures and treatment modalities for this syndrome. A 29-year-old primigravid presented at 36 weeks' gestation with diarrhea, abdominal pain, fever, and fetal bradycardia. She underwent an emergency cesarean section and was subsequently diagnosed with GAS TSS. She had a complicated post-partum course marked by a 3-month hospital stay and major sequelae. Her infant died on post-partum day 4. GAS TSS should be considered in the differential diagnosis of pregnant patients presenting with fever and rapid onset of septic shock. A consideration to treat GAS that is detected incidentally during routine screening for group B streptococcus is suggested.

Database: CINAHL

7. Exacerbation of primary intestinal lymphangiectasia during late pregnancy and recovery after delivery

Author(s): Lu J.; Zhai H.

Source: Medicine (United States); Sep 2017; vol. 96 (no. 35)

Publication Date: Sep 2017

Publication Type(s): Review

PubMedID: 28858117

Available at Medicine - from Europe PubMed Central - Open Access

Available at Medicine - from Ovid (Journals @ Ovid) - Remote Access

Available at Medicine - from Unpaywall

Abstract: Primary intestinal lymphangiectasia (PIL) is a rare disease characterized by dilated intestinal lacteals resulting in lymph leakage into the small bowel lumen. Main clinical features include intermittent diarrhea, hypoproteinemia. Scattered case reports suggested that PIL is compatible to pregnancy, but with increased complications. Patient concerns: A 34-year-old woman with endoscopically diagnosed PIL presented to antenatal our clinic at 10 weeks into gestation. She reported strict adherence to low-fat/high-protein diet with medium-chain triglycerides (MCTs) supplementation. She was general well except for moderate edema and hypoalbuminemia. At 33 weeks, she developed diarrhea, nausea, and vomiting, with decreased fetal movements. One week later, she had an asthma attack. Nonstress test showed frequent variable deceleration. Diagnoses: The diagnosis of PIL was established endoscopically 8 years earlier. Intervention(s): Hypoalbuminemia was corrected with intravenous albumin administration. She also received corticosteroid therapy to promote fetal lung maturation in anticipation to early termination of the pregnancy. Outcome(s): A cesarean section was carried out at 34 weeks due to fetal distress. The baby girl was apparently healthy: Weighing 2160 g, with an Apgar score of 9 at both 1 and 5 minutes. Symptoms dissipated rapidly after the delivery. The last follow-up visit at 15 months was unremarkable for both the mother and infant. Lessons: PIL could be compatible with pregnancy, but requires strict adherence to dietary treatment, proper management of the symptoms (e.g., hypoalbuminemia), particularly during late gestation.

Database: EMBASE

8. The role of maternal anxiety and depressive disorders prior to and during pregnancy and perinatal psychopathological symptoms for early infant diseases and drug administration.

Author(s): Krause, Linda; Einsle, Franziska; Petzoldt, Johanna; Wittchen, Hans-Ulrich; Martini, Julia

Source: Early Human Development; Jun 2017; vol. 109 ; p. 7-14

Publication Date: Jun 2017

Publication Type(s): Academic Journal

PubMedID: NLM28399458

Abstract: Background: Maternal mental health prior to and during pregnancy has been shown to be associated with inflammatory diseases and gastrointestinal complaints in the offspring. Unfortunately, many studies merely focused on perinatal distress without consideration of lifetime anxiety and depressive disorders.Aims: To prospectively investigate associations of anxiety and depressive disorders prior to and during pregnancy as well as perinatal distress with infants' inflammatory diseases, gastrointestinal complaints and corresponding drug administration.Study Design: Prospective-longitudinal study initiated in 2009/2010.Subjects: N=306 (expectant) mothers

with and without DSM-IV lifetime anxiety and depressive disorders (Composite International Diagnostic Interview for Women) and low vs. high severity of psychopathological symptoms during pregnancy (Brief Symptom Inventory) enrolled in early pregnancy and repeatedly assessed during peripartum period.Outcome Measures: Infant inflammatory diseases, gastrointestinal complaints and drug administration assessed via questionnaire (maternal report) at four months postpartum (n=279).Results: Severe psychopathological symptoms during pregnancy were associated with inflammatory diseases and anti-infective medication, whereas anxiety and depressive disorders prior to and during pregnancy were related to gastrointestinal complaints (diarrhea, colic complaints) and corresponding medication.Conclusions: These results have to be discussed with caution, because information on infants' diseases were based exclusively on maternal self-reports. However, they suggest promising directions regarding our current knowledge about the relevance of maternal perinatal distress for infant inflammatory diseases (e.g. fetal programming). Moreover, the association between maternal anxiety and depressive disorders and infant gastrointestinal complaints may be explained by an anxious misinterpretation of 'normal' infant signals or a transmission of adverse gut microbiota, respectively.

Database: CINAHL

9. Satoyoshi syndrome in pregnancy.

Author(s): Sharpe, Abigail; Mahadasu, Shilpa; Manda, Padma; Meneni, Deepika

Source: European Journal of Obstetrics & Gynecology & Reproductive Biology; Apr 2016; vol. 199 ; p. 215-216

Publication Date: Apr 2016

Publication Type(s): Academic Journal

PubMedID: NLM26947175

Database: CINAHL

10. An unexpected cause of diarrhea in a pregnant patient: a case report.

Author(s): Villar-Díaz, Michelle; Vázquez-Guzmán, Miguel; Rivera Rosa, Edgardo; Romaguera, Josefina; Iehsus Flores, Pérez

Source: Boletin de la Asociacion Medica de Puerto Rico; 2012; vol. 104 (no. 4); p. 45-46

Publication Date: 2012

Publication Type(s): Case Reports Journal Article

PubMedID: 23763223

Abstract: In 2009 AH1N1, a novel influenza virus was identified. Majority of complications arise in specific group of patient including pregnant women. This report is a description of the first patient encountered in our institution. Such case was a yo woman on the 23rd week of gestation that presented with several episodes of diarrhea. Shortly after admission what appeared to be a common case of gastroenteritis evolved in respiratory distress and hemodynamic instability progressing to respiratory distress syndrome. The diagnosis was delayed by the absence of respiratory symptoms at presentation as well as by the lack of rapid specific laboratories. This case was a fatality that reinforces the need of a high index of suspicion and prompt treatment even in the most atypical presentations of the disease.

Database: Medline

11. A pregnant woman with severe diarrhea.

Author(s): Petersen, Kyle; O'Connell, Robert J; Sandige, Heidi L; Barnes, Steven L; Danaher, Patrick J; El Masry, Nabil A; El Dib, Nadia A

Source: Clinical infectious diseases : an official publication of the Infectious Diseases Society of America; Dec 2009; vol. 49 (no. 11); p. 1742

Publication Date: Dec 2009

Publication Type(s): Case Reports Journal Article

PubMedID: 19891566

Available at Clinical infectious diseases : an official publication of the Infectious Diseases Society of America - from Oxford Journals - Medicine

Available at Clinical infectious diseases : an official publication of the Infectious Diseases Society of America - from Unpaywall

Database: Medline

12. Reduced watery diarrhea during pregnancy in a psoriasis patient with lymphocytic colitis

Author(s): Wiedermann C.J.; Zagler B.

Source: Zeitschrift fur Gastroenterologie; Nov 2008; vol. 46 (no. 11); p. 1275-1277

Publication Date: Nov 2008

Publication Type(s): Article

PubMedID: 19012199

Abstract: Lymphocytic colitis which is more common in women than in men has been associated with autoimmune conditions, and hormones are thought to play a role. The effect of pregnancy on the clinical course of women with lymphocytic colitis has not yet been reported. We describe a case of chronic watery diarrhea in a woman with psoriasis and lymphocytic colitis that has relapsed after successful treatment with budesonide had been stopped before undergoing modern assisted reproductive care. Elevated stool frequencies diminished after in vitro fertilization and remained normal throughout pregnancy when no systemic immunosuppressive therapy was administered and plaque psoriasis slightly worsened under local symptomatic treatment. After preterm birth and early breastfeeding cessation, chronic watery diarrhea, however, recurred. This clinical observation suggests that pregnancy influences the overall course of chronic watery diarrhea of autoimmune-associated microscopic colitis. © Georg Thieme Verlag KG Stuttgart.

Database: EMBASE

13. Clostridium difficile-associated diarrhea: an emerging threat to pregnant women.

Author(s): Rouphael, Nadine G; O'Donnell, Judith A; Bhatnagar, Julu; Lewis, Felicia; Polgreen, Philip M; Beekmann, Susan; Guarner, Jeannette; Killgore, George E; Coffman, Becky; Campbell, Jennifer; Zaki, Sherif R; McDonald, L Clifford

Source: American journal of obstetrics and gynecology; Jun 2008; vol. 198 (no. 6); p. 635

Publication Date: Jun 2008

Publication Type(s): Journal Article

PubMedID: 18395693

Abstract:OBJECTIVETo estimate if Clostridium difficile-associated disease (CDAD) is increasing in peripartum women.STUDY DESIGNPeripartum CDAD was assessed through 1) passive surveillance collecting clinical and pathology data on severe cases and 2) survey among infectious disease consultants (ICDs) in the Emerging Infections Network.RESULTSTen severe cases were collected; most had associated antibiotic use. Seven women were either admitted to the ICU or underwent colectomy. Three infants were stillborn, and 3 women died. The epidemic Clostridium difficile strain was found in 2 cases. Among 798 ICDs, 419 (52%) participated in the survey. Thirty-seven respondents (9%) recalled 55 cases, mostly in the postpartum period with 21 complications, mainly due to relapse.CONCLUSIONSevere CDAD may be increasing in peripartum women. Clinicians should have a low threshold for testing, be aware of the potential for severe outcomes, and take steps to reduce both the risk of disease and resultant complications.

Database: Medline

14. Congenital chloride diarrhea in pregnancy: A case report

Author(s): Iijima S.; Ohzeki T.; Sugimura M.; Kanayama N.

Source: European Journal of Obstetrics and Gynecology and Reproductive Biology; Jan 2008; vol. 136 (no. 1); p. 127-128

Publication Date: Jan 2008

Publication Type(s): Letter

PubMedID: 17011695

Database: EMBASE

15. Diarrhea in pregnancy: C. diff?

Author(s):

Source: Nursing for Women's Health; Feb 2007; vol. 11 (no. 1); p. 19-19

Publication Date: Feb 2007

Publication Type(s): Academic Journal

Database: CINAHL

16. Diagnosis and management of irritable bowel syndrome, constipation, and diarrhea in pregnancy.

Author(s): West, L; Warren, J; Cutts, T

Source: Gastroenterology clinics of North America; Dec 1992; vol. 21 (no. 4); p. 793-802

Publication Date: Dec 1992

Publication Type(s): Journal Article Review

PubMedID: 1478735

Abstract: Irritable bowel syndrome, constipation, and diarrhea may complicate a pregnancy. Complaints of IBS and constipation may be managed by nonpharmaceutical methods. A careful history should be conducted to determine whether these complaints are of an acute or a long-standing nature. Conservative treatment of IBS is recommended and may include stool-bulking agents, a high-fiber diet, elimination of offensive foods, and the behavioral treatment of passive muscle relaxation, biofeedback or supportive psychotherapy. Constipation is generally self-limiting. It also may be treated conservatively with stool-bulking agents, increases in dietary fiber, and the addition of pelvic muscle exercises, preferably using electromyographic biofeedback. Laxatives should be used judiciously (Table 1). Diarrhea is caused most often by infectious agents in pregnancy but may also be from food poisoning or a viral disease. Infectious diarrhea may be treated by mild antidiarrheal agents and safe antibiotics. Fluid replacement is the mainstay of treatment, and care should be taken, remembering that the treatment involves two patients. These complaints can generally be managed conservatively, but persistent cases should be investigated as in a nonpregnant patient.

Database: Medline

17. Management of pregnant women with diarrhoea at term and of healthy carriers of infectious agents in stools at delivery.

Author(s): Grandien, M; Sterner, G; Kalin, M; Engardt, L

Source: Scandinavian journal of infectious diseases. Supplementum; 1990; vol. 71 ; p. 9-18

Publication Date: 1990

Publication Type(s): Guideline Journal Article

PubMedID: 2287923

Database: Medline

18. Unsuspected streptococcal infection presenting with diarrhoea in late pregnancy.

Author(s): Teall, A; Visuvanthan, S; Payne, A; Silverstone, A

Source: The Journal of infection; Mar 1987; vol. 14 (no. 2); p. 185-186

Publication Date: Mar 1987

Publication Type(s): Letter Case Reports

PubMedID: 3553339

Database: Medline

Strategy 789869

#	Database	Search term	Results
1	Medline	(antenatal OR prenatal).ti,ab	120158
2	Medline	(pregnan*).ti,ab	479831
3	Medline	exp PREGNANCY/	781940
4	Medline	(1 OR 2 OR 3)	975996
5	Medline	*DIARRHEA/	26769
6	Medline	(Diarrhea OR diarrhoea).ti	24384
7	Medline	(5 OR 6)	35142
8	Medline	(4 AND 7)	748
9	Medline	(pregnan*).ti	224113
10	Medline	(7 AND 9)	76
11	Medline	*PREGNANCY/	31445
12	Medline	(7 AND 11)	3
13	Medline	exp "PREGNANCY COMPLICATIONS"/	368859
14	Medline	(7 AND 13)	279
15	Medline	(prostaglandin*).ti,ab	96410
16	Medline	exp PROSTAGLANDINS/	93088
17	Medline	(15 OR 16)	130323
18	Medline	(7 AND 17)	192
19	CINAHL	(pregnan*).ti,ab	117445
20	CINAHL	exp PREGNANCY/	188909

21	CINAHL	(19 OR 20)	222638
22	CINAHL	(Diarrhea OR diarrhoea).ti	3543
23	CINAHL	exp DIARRHEA/	9308
24	CINAHL	(22 OR 23)	9861
25	CINAHL	(21 AND 24)	190
26	CINAHL	exp "PREGNANCY COMPLICATIONS"/	82175
27	CINAHL	(24 AND 26)	88
28	EMBASE	*PREGNANCY/	136330
29	EMBASE	*DIARRHEA/ OR *"ACUTE DIARRHEA"/	34261
30	EMBASE	(28 AND 29)	158
31	EMBASE	*"PREGNANCY COMPLICATION"/	32435
32	EMBASE	(29 AND 31)	10
33	EMBASE	((Diarrhea OR diarrhoea) ADJ2 pregnan*).ti,ab	41
34	Medline	((Diarrhea OR diarrhoea) ADJ2 pregnan*).ti,ab	50
35	CINAHL	((Diarrhea OR diarrhoea) ADJ2 pregnan*).ti,ab	5
36	BNI	DIARRHEA/	1297
37	BNI	PREGNANCY/	24953
38	BNI	(36 AND 37)	18
40	EMBASE	exp "ACUTE DIARRHEA"/ OR exp DIARRHEA/	245888
41	EMBASE	(31 AND 40)	69

42	EMBASE	exp PROSTAGLANDIN/	153513
43	EMBASE	(29 AND 42)	660
44	EMBASE	*PROSTAGLANDIN/	22055
45	EMBASE	(29 AND 44)	124