



West Middlesex University Hospital

Gonadotropin-releasing hormones and Psychosis

Date of Search: 19/08/2016

Sources Searched: Medline, Embase, PsycINFO, DynaMed, Google Scholar.

Search History:

1. Medline; exp GONADOTROPIN-RELEASING HORMONE/; 29800 results.
2. Medline; GnRH.ti,ab; 19113 results.
3. Medline; exp FOLLICLE STIMULATING HORMONE/; 35589 results.
4. Medline; "follicle-stimulating hormone*".ti,ab; 16128 results.
5. Medline; "FSH-RH".ti,ab; 71 results.
6. Medline; "luteinizing releasing hormone*".ti,ab; 34 results.
7. Medline; exp LUTEINIZING HORMONE/; 44978 results.
8. Medline; gonadoliberein.ti,ab; 139 results.
9. Medline; 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8; 83937 results.
10. Medline; psychosis.ti,ab; 27722 results.
11. Medline; exp PSYCHOTIC DISORDERS/; 45237 results.
12. Medline; 10 OR 11; 59251 results.
13. Medline; 9 AND 12; 39 results.
14. Medline; withdraw*.ti,ab; 101829 results.
15. Medline; exp SUBSTANCE WITHDRAWAL SYNDROME/; 21435 results.
16. Medline; 14 OR 15; 109420 results.
17. Medline; 13 AND 16; 2 results.
18. Medline; 1 AND 12; 7 results.
19. EMBASE; *GONADORELIN/; 16418 results.
20. EMBASE; GnRH.ti,ab; 23283 results.
21. EMBASE; "GONADOTROPIN-RELEASING HORMONE*".ti,ab; 13159 results.
22. EMBASE; exp FOLLICLE STIMULATING HORMONE/; 49327 results.
23. EMBASE; "follicle-stimulating hormone*".ti,ab; 17226 results.
24. EMBASE; "FSH-RH".ti,ab; 40 results.
25. EMBASE; "luteinizing releasing hormone*".ti,ab; 33 results.
26. EMBASE; exp LUTEINIZING HORMONE/; 50928 results.
27. EMBASE; gonadoliberein.ti,ab; 130 results.
28. EMBASE; 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27; 97500 results.
29. EMBASE; psychosis.ti,ab; 41145 results.
30. EMBASE; exp PSYCHOSIS/; 240720 results.
31. EMBASE; 29 OR 30; 245922 results.
32. EMBASE; 28 AND 31; 255 results.
33. EMBASE; 19 AND 31; 30 results.
34. EMBASE; exp DRUG WITHDRAWAL/; 131930 results.
35. EMBASE; 32 AND 34; 17 results.
36. EMBASE; exp GONADORELIN/; 30238 results.

37. EMBASE; 31 AND 36; 92 results.
38. EMBASE; 32 OR 37; 288 results.
39. EMBASE; exp BUSERELIN/; 4175 results.
40. EMBASE; exp LEUPRORELIN/; 9586 results.
41. EMBASE; exp NAFARELIN/; 944 results.
42. EMBASE; exp TRIPTORELIN/; 4495 results.
43. EMBASE; 39 OR 40 OR 41 OR 42; 16249 results.
44. EMBASE; 31 AND 43; 106 results.
45. EMBASE; 38 OR 44; 375 results.
46. EMBASE; exp FERTILIZATION IN VITRO/; 43833 results.
47. EMBASE; 31 AND 46; 59 results.
48. EMBASE; exp GONADOTROPIN/; 24779 results.
49. EMBASE; 31 AND 48; 52 results.
50. Medline; exp BUSERELIN/; 2060 results.
51. Medline; exp LEUPRORELIN/; 0 results.
52. Medline; exp NAFARELIN/; 322 results.
53. Medline; exp TRIPTORELIN/; 0 results.
54. Medline; LEUPRORELIN.ti,ab; 382 results.
55. Medline; TRIPTORELIN.ti,ab; 619 results.
56. Medline; BUSERELIN.ti,ab; 1281 results.
57. Medline; NAFARELIN.ti,ab; 250 results.
58. Medline; 50 OR 52 OR 54 OR 55 OR 56 OR 57; 3552 results.
59. Medline; 12 AND 58; 0 results.
60. Medline; psychotic*.ti,ab; 27971 results.
61. Medline; 58 AND 60; 0 results.
62. Medline; 9 AND 60; 26 results.
63. PsycInfo; (psychosis OR psychotic*).ti,ab; 59672 results.
64. PsycInfo; exp PSYCHOSIS/; 100963 results.
65. PsycInfo; 63 OR 64; 127416 results.
66. PsycInfo; "follicle-stimulating hormone*".ti,ab; 493 results.
67. PsycInfo; "FSH-RH".ti,ab; 0 results.
68. PsycInfo; "luteinizing releasing hormone*".ti,ab; 2 results.
69. PsycInfo; gonadoliberein.ti,ab; 1 results.
70. PsycInfo; "GONADOTROPIN-RELEASING HORMONE*".ti,ab; 640 results.
71. PsycInfo; gonadoliberein.ti,ab; 1 results.
72. PsycInfo; LEUPRORELIN.ti,ab; 10 results.
73. PsycInfo; TRIPTORELIN.ti,ab; 22 results.
74. PsycInfo; BUSERELIN.ti,ab; 6 results.
75. PsycInfo; NAFARELIN.ti,ab; 1 results.
76. PsycInfo; GONADOTROPIC HORMONES/; 1102 results.
77. PsycInfo; 66 OR 68 OR 69 OR 70 OR 71 OR 72 OR 73 OR 74 OR 75 OR 76; 1704 results.
78. PsycInfo; 65 AND 77; 52 results.
79. PsycInfo; exp LUTEINIZING HORMONE/; 752 results.
80. PsycInfo; 65 AND 79; 14 results.
81. PsycInfo; (ivf OR "invitro fertilization" OR "in vitro fertilization" OR "invitro fertilisation" OR "in vitro fertilisation").ti,ab; 699 results.
82. PsycInfo; 65 AND 81; 3 results.

83. PsycInfo; REPRODUCTIVE TECHNOLOGY/; 1580 results.
84. PsycInfo; 65 AND 83; 9 results.
85. EMBASE; exp MENTAL DISEASE/; 1739569 results.
86. EMBASE; 28 AND 34 AND 85; 167 results.
87. EMBASE; 19 AND 85; 343 results.
88. EMBASE; exp DRUG INDUCED DISEASE/; 32693 results.
89. EMBASE; 87 AND 88; 3 results.
90. EMBASE; 85 AND 86 AND 88; 6 results.
91. EMBASE; 43 AND 85; 1186 results.
92. EMBASE; 88 AND 91; 16 results.
93. PsycInfo; exp PSYCHIATRIC SYMPTOMS/; 12878 results.
94. PsycInfo; 77 AND 93; 5 results.
95. Medline; exp MENTAL DISORDERS/; 1179007 results.
96. Medline; 9 AND 95; 1937 results.
97. Medline; exp CHEMICALLY-INDUCED DISORDERS/; 587857 results.
98. Medline; 96 AND 97; 293 results.
99. Medline; 1 AND 95 AND 97; 79 results.
100. Medline; 58 AND 95 AND 97; 4 results.
101. Medline; 58 AND 95; 45 results.

Title: Transient psychosis in women on clomiphene, bromocriptine, domperidone and related endocrine drugs

Citation: Gynecological Endocrinology, October 2015, vol./is. 31/10(751-754), 0951-3590;1473-0766 (03 Oct 2015)

Author(s): Seeman M.V.

Language: English

Abstract: Background: There have been reports of transient psychosis in women medicated for gynecologic conditions.Objective: The aim of this paper was to explore this literature.Method: The PubMed and Google Scholar databases were searched for relevant case reports Results: The following reports were found: psychosis induced by gonadotropin-releasing hormone in the treatment of endometriosis, by clomiphene treatment for infertility, by bromocriptine treatment for milk suppression and by the withdrawal of domperidone prescribed as a galactagogue as well as by the withdrawal of estrogen replacement therapy.Conclusion: In susceptible women, psychotic symptoms can result from treatments that reduce estrogen levels, such as leuprolide acetate or clomiphene, or treatments that increase dopamine levels (bromocriptine). Psychosis can also be caused indirectly when estrogen treatment is discontinued or dopamine antagonism (e.g. domperidone) withdrawn. Estrogen-reducing and dopamine-increasing treatments used in gynecology need to be carefully monitored.

Publication Type: Journal: Article

Source: EMBASE

Title: Psychosis after FSH and LH stimulation for ovocytes preservation in gender dysphoria- a case report

Citation: European Psychiatry, March 2015, vol./is. 30/(929), 0924-9338 (31 Mar 2015)

Author(s): Oliveira C., Alves S., Oliveira S., Agostinho C., Avelino M.

Language: English

Abstract: Introduction: Gender dysphoria is a new diagnostic class in DSM-5 that reflects a new conceptualization of the disorder emphasizing the phenomenon of 'gender incongruence'. It refers to the distress that may accompany the incongruence between one's experienced or expressed gender and one's assigned gender. Hormone and/or surgery are treatment options available. There is some clinical evidence that patients under gonadotropin-releasing hormone (GnRH) agonists may develop symptoms consistent with various psychiatric disorders with and without psychotic features. Objectives and Aims: To review new DSM-5 conceptualization of gender dysphoria and psychiatric side effects of ovocyte stimulation drugs. Also to report one selected clinical case of psychosis after FSH and LH stimulation in a patient under female to male sex reassignment process. Methods: The authors have conducted an online search on PubMed on psychosis after ovocytes stimulation and gender dysphoria and systematically reviewed a case report. Results: There is little evidence of psychiatric side-effects of GnRH agonist. Case report: 22 years old male with diagnosis of gender dysphoria under female to male sex reassignment process with FSH and LH stimulation to ovocyte preservation that acutely developed psychiatry symptoms of bizarre behaviour, irritability, flight of ideas, soliloquies and erotomaniac delusions that remit on antipsychotic drugs. Conclusions: Gender dysphoria is a new diagnostic class in DSM-5. There are multiple hormone and/or surgery treatments options. There is little evidence hormone treatments are associated with psychiatric side-effects, namely psychosis. To conduct a well-designed clinical trial on psychiatric symptoms related with hormone treatment in gender dysphoria patients is needed.

Publication Type: Journal: Conference Abstract

Source: EMBASE

Title: Psychotic episode secondary to gonadotrophins.

Citation: General hospital psychiatry, Sep 2014, vol. 36, no. 5, p. 549.e7, 1873-7714 (2014 Sep-Oct)

Author(s): Rodrigues, José Daniel Machado, Lapa, Maria Georgina Santos, Brockington, Ian Fraser

Abstract: To report a case of a substance-induced psychotic disorder secondary to ovulation induction therapy with gonadotrophins. Case report. We report a case of a psychotic episode secondary to gonadotrophins therapy. The acute episode was treated with antipsychotic (Aripiprazole). After 2 years the patient remains free of psychotic symptoms. There have been several reports correlating low levels of estrogen with psychotic symptoms, leading to studies evaluating the possible effect of this hormone as an antipsychotic. In this case, we report psychotic symptoms with high levels of estradiol, which is contrary to that theory. Copyright © 2014 Elsevier Inc. All rights reserved.

Source: Medline

Title: Acute manic and psychotic symptoms following subcutaneous leuprolide acetate in a male patient without prior psychiatric history: A case report and literature review

Citation: Urological Science, March 2014, vol./is. 25/1(22-24), 1879-5226 (March 2014)

Author(s): Pong Y.-H., Lu Y.-C., Tsai V.F.S., Huang P.-L., Hsieh J.-T., Chang H.-C.

Language: English

Abstract: Leuprolide acetate is usually used in the treatment of advanced prostate cancer. The adverse events associated with administration of leuprolide acetate include fatigue, hot flashes, loss of libido, impotence, and depression. These side effects can be treated conservatively. Acute manic and psychiatric symptoms following leuprolide acetate injection are very rare. Few case reports have been published documenting these symptoms. Here, we describe the case of a 62-year-old male with metastatic prostate cancer, who developed acute manic and psychiatric symptoms 2 months after subcutaneous leuprolide acetate injection. These symptoms were relieved after administration of neuroleptic drugs, such as risperidone. Administration of leuprolide acetate was eventually stopped. The exact mechanism causing the manic and psychiatric adverse events is unclear. Some experts have theorized that estrogen withdrawal following leuprolide acetate therapy may induce psychiatric symptoms. Manic episodes may arise from a deficit in central serotonergic neurotransmission. Based on these hypotheses, risperidone, lithium, and some anticonvulsants, such as divalproex sodium and carbamazepine, have been used effectively in the treatment and prophylaxis of manic episodes. Although psychiatric adverse events are rare following administration of leuprolide acetate, clinicians should be aware of the possibility. © 2013.

Publication Type: Journal: Article

Source: EMBASE

Title: Mid-stimulation psychosis" in the course of in vitro fertilization procedure with the use of clomiphene citrate and bromocriptine-case study [Polish] Przypadek "psychozy

okoostymulacyjnej" w przebiegu procedury zapłodnienia pozaustrojowego z zastosowaniem cytrynianu klomifenu oraz bromokryptyny

Citation: Psychiatria Polska, 2014, vol./is. 48/5(901-916), 0033-2674 (2014)

Author(s): Holka-Pokorska J., Pirog-Balcerzak A., Stefanowicz A.

Language: Polish

Abstract: Aim. A few cases of psychosis induced by clomiphene citrate have been described so far. However, data on the prevalence of psychotic symptoms among women treated for infertility are inconclusive. Still a little is known about possible psychiatric complications of medications used in assisted reproduction techniques (ART). We present a case of a patient who developed transient psychotic symptoms in the course of the in vitro fertilization procedures. To our knowledge, this is the first case of 'mid-stimulation psychosis', which has been observed during ART using clomiphene citrate and bromocriptine. The aim of this study is to describe the determinants of pharmacotherapy undertaken in ART, which can result in the development of psychotic symptoms. Methods. The case presentation. Conclusions. The use of clomiphene citrate for ovulation induction in combination with bromocriptine used for chronic hyperprolactinemia is a likely mechanism that might have triggered psychotic symptoms in the case presented. However, combination therapy with clomiphene citrate and bromocriptine may be the pharmacological model of hyper-dopaminergia followed by chaotic changes in serum estrogen levels and might lead to an increased sensitivity of dopamine receptors. The above therapeutic schema may increase susceptibility to the development of psychotic symptoms in treated women. This impact should be considered in the case of any psychotic complications in patients undergoing assisted reproduction techniques.

Publication Type: Journal: Article

Source: EMBASE

Full Text:

Available from *Free Access Content* in [Psychiatria Polska](#)

Title: New-onset psychosis following androgen deprivation therapy for prostate cancer.

Citation: The Canadian journal of urology, Aug 2013, vol. 20, no. 4, p. 6868-6870, 1195-9479 (August 2013)

Author(s): Bernad, Daniel M, Dal Pra, Alan, Baule, Cintia, Frey, Benicio N, Faria, Sergio

Abstract: Androgen deprivation therapy (ADT) is commonly used in the treatment of prostate cancer and is associated with several side effects including psychiatric disorders. We present an unusual case of a 62-year-old man with high risk prostate cancer that developed de novo psychosis after starting luteinizing hormone-releasing hormone (LHRH) agonists and discuss possible mechanisms to explain such findings. This case report

highlights the importance of continuing assessment and monitoring of potential emotional and behavioral symptoms in prostate cancer patients treated with ADT.

Source: Medline

Title: A psychotic episode after the administration of gonadotrophin-releasing hormone agonist (GnRHa) before a homolog intrauterine insemination. A case report

Citation: Journal of Psychosomatic Obstetrics and Gynecology, October 2010, vol./is. 31/(82), 0167-482X (October 2010)

Author(s): Nussli R.A.

Language: English

Abstract: Introduction: Schizophrenic disorders can affect women in different ages, with a first peak in the late twenties and a second one after the age of 45 in the perimenopause. Psychoses associated with oestrogen withdrawal are found in different situation for example in the puerperium and premenstrually. In the treatment of infertility with assisted reproductive technology (ART) the administration of Gn-RHa to achieve suppression of ovarian activity before starting gonadotrophin administration induces also a marked decrease in the endogenous secretion of oestrogen. Case report: A 26-year-old woman with primary infertility due to polycystic ovaries syndrome was administrated a single dose of Gn-RHa before a homolog intrauterine insemination (IUI). At the beginning of the ovarian stimulation the concentration of estradiol was very low as expected. After one week of daily injection of recombinant follicle-stimulating hormone (rFSH) she was hospitalised because of an acute psychotic and affective symptomatology. Shortly after demission without antipsychotic medication she had to be readmitted for severe symptoms. A treatment with neuroleptics and hormonal contraception were started. Discussion: Oestrogens clearly modulate different neurotransmitter pathways. When the protective effect of estradiol is reduced due to a medically induced oestrogen withdrawal there may be a risk of developing a psychotic disorder in susceptible women. Therefore it is important to disclose any previous psychiatric disorder in women with infertility, especially before starting a therapy with Gn-RHa. A patient with a newly diagnosed schizophrenic disorder and infertility needs to be treated from an interdisciplinary team of psychiatrists fertility specialists and obstetricians.

Publication Type: Journal: Conference Abstract

Source: EMBASE

Title: Depressive Symptoms Related to Infertility and Infertility Treatments

Citation: Psychiatric Clinics of North America, June 2010, vol./is. 33/2(309-321), 0193-953X (June 2010)

Author(s): Wilkins K.M., Warnock J.K., Serrano E.

Language: English

Abstract: This article reviews depressive symptoms in women as they relate to infertility and infertility treatments. Common causes of infertility in women are discussed and the literature on depressive symptoms before and during various infertility treatments is presented. Recommendations are made from a psychiatric perspective regarding how to manage depressive symptoms in women in the context of infertility. © 2010 Elsevier Inc.

Publication Type: Journal: Review

Source: EMBASE

Title: Leuprolide-induced mania with psychotic symptoms in a male patient with no prior psychiatric history

Citation: Journal of Pharmacy Practice, April 2010, vol./is. 23/2(151), 0897-1900 (April 2010)

Author(s): Chavez B., Reilly T.

Language: English

Abstract: Abstract Type: Therapeutic Case Report. Background: Leuprolide is a gonadotropin-releasing hormone analog that results in suppression of sex hormones produced by the ovaries and testes. It is used in the treatment of prostate cancer and endometriosis, among other conditions. The most common side effects reported with leuprolide treatment are malaise, fatigue, and vasomotor symptoms; depression has also been reported. Patient History: Mr. X is a 65-year-old white male with a past medical history significant for prostate cancer and no psychiatric history. The patient had been treated for prostate cancer with radiation seed implants 4 years ago and leuprolide 45 mg subcutaneously approximately 2 months prior to admission, due to an increase in his prostate-specific antigen level. He was brought into the emergency room by the police after being called by his wife. She reported that he was extremely agitated, shouting profanities, threatening her, and accusing her of being schizophrenic. He had been sleeping progressively less over the last 3-4 weeks. He had persecutory delusions regarding the mafia and FBI. He had also been impulsively buying objects he had no use for. He was hyperverbal, had pressured speech, and was repeatedly quoting the Bible. His wife reports this is an extreme deviation from his normal behavior. Upon admission he was started on olanzapine 10 mg/d and titrated to 20 mg/d with symptom improvement. Two months after discharge, the patient continues to do well, despite discontinuing olanzapine one month after discharge. He has not received a second shot of leuprolide since this event. Review of

Literature: A Pubmed/MEDLINE search was carried out using the terms leuprolide, mania, psychosis, mood disorder, and bipolar disorder. This revealed 2 publications, for a total of 5 cases, describing leuprolide induced mood-disturbances, and only 2 of those cases had mania and/or psychosis. The rest of the cases only described depressive symptoms.

Conclusion: This case is one of the few available describing a patient experiencing psychotic symptoms after receiving a leuprolide subcutaneous injection. It is also the first case of mania and psychosis reported in a male patient receiving leuprolide.

Publication Type: Journal: Conference Abstract

Source: EMBASE

Title: Psychiatric Aspects of Infertility and Infertility Treatments

Citation: Psychiatric Clinics of North America, December 2007, vol./is. 30/4(689-716), 0193-953X (December 2007)

Author(s): Burns L.H.

Language: English

Abstract: Infertility counseling, whether provided by a psychiatrist or another health care professional, involves the treatment and care of patients, not simply when they are undergoing fertility treatment but also with their long-term emotional well-being, and that of their children and the reproductive helpers who may assist them in achieving biologic or reproductive parenthood. They can educate patients about the side effects of infertility treatment medications and the impact of hormone shifts on psychological well-being. They are also helpful with differential diagnoses among grief, depressions, and stress; in assessing psychological preparedness; and in determining the acceptability and suitability of gamete donation, a gestational carrier, or surrogacy as a family-building alternative for individuals, couples, and reproductive collaborators. © 2007 Elsevier Inc. All rights reserved.

Publication Type: Journal: Review

Source: EMBASE

Title: Exacerbation of a schizoaffective psychosis after in vitro fertilization with leuproreline acetate [German] Exazerbation einer schizoaffectiven psychose nach in-vitro-fertilisation mit leuprorelinacetat

Citation: Nervenarzt, June 2007, vol./is. 78/6(691-695), 0028-2804 (June 2007)

Author(s): Abu-Tair F., Strowitzki T., Bergemann N.

Language: German

Abstract: Leuproreline acetate is a gonadotropin-releasing hormone (GnRH) analog which is used for in vitro fertilization (IVF) treatment. This compound suppresses gonadal estrogen secretion prior to hormonal stimulation. We report a 37-year-old woman who suffered from a schizoaffective psychosis for several years. She received IVF treatment with leuproreline acetate (Uno-Enantone) because of primary infertility. Under this treatment she developed acute schizoaffective symptoms. Suppression of gonadal secretion can result in exacerbation of schizophrenic psychosis, which is in line with the hypothesis of protective effects of estrogen in schizophrenia. We recommend that IVF treatment with leuproreline acetate in patients with psychiatric disorders be initiated only with special attention to their mental condition. In addition, patients should be informed about the possible mental effects of the treatment. © 2007 Springer Medizin Verlag.

Publication Type: Journal: Article

Source: EMBASE

Full Text:

Available from *Springer Link Journals* in [Der Nervenarzt](#)

Title: Psychiatric issues of infertility and infertility treatments

Citation: Primary Psychiatry, May 2007, vol./is. 14/5(59-65), 1082-6319 (May 2007)

Author(s): Baxter C., Warnock J.K.

Language: English

Abstract: How common is infertility, what are its causes, and what are some psychiatric complications psychiatrists should consider when treating patients undergoing infertility treatment or coping with feelings related to infertility? Approximately 10% of couples in the United States have requested infertility services at some point during their reproductive years. Diagnostic and treatment procedures for couples with infertility are often expensive, invasive, and stressful. Experience with infertility may be associated with numerous subjective emotions and some psychiatric morbidity. Women may be more affected by the experience of infertility than men, and are more likely to suffer from depression. Women are also vulnerable to psychiatric disorders following the administration of certain medications, such as gonadotropin-releasing hormone agonists, and after failed assisted reproductive technology procedures.

Publication Type: Journal: Review

Source: EMBASE

Full Text:

Available from *Free Access Content* in [Primary Psychiatry](#)

Title: Psychotic disorders and gonadal function: evidence supporting the oestrogen hypothesis.

Citation: Acta psychiatrica Scandinavica, Apr 2004, vol. 109, no. 4, p. 269-274, 0001-690X (April 2004)

Author(s): Huber, T J, Borsutzky, M, Schneider, U, Emrich, H M

Abstract: The aim of this study was to further evaluate the oestrogen hypothesis of schizophrenia, which postulates low oestradiol levels to be a risk factor for these disorders. A possible influence of neuroleptic-induced hyperprolactinaemia was to be addressed. Sex hormones were measured and cycle phase assessed in 50 acutely psychotic women on admission and for four consecutive weeks as well as in three control groups. Psychotic women were more likely to be admitted during a low oestrogen phase of their cycle and exhibited markedly reduced oestradiol levels, compared with 23 healthy controls, as well as 50 women suffering from other psychiatric disorders. Oestradiol variability was reduced over the menstrual cycle in women suffering from psychotic disorders. These results support the oestrogen hypothesis. Hyperprolactinaemia due to neuroleptic treatment does not appear to account for the findings.

Source: Medline

Full Text:

Available from *John Wiley and Sons* in [Acta Psychiatrica Scandinavica](#)

Available from *John Wiley and Sons* in [Acta Psychiatrica Scandinavica](#)

Available from *Ovid* in [Acta Psychiatrica Scandinavica](#)

Title: Psychological and Personality Factors and In Vitro Fertilization Treatment in Women.

Citation: The European Journal of Psychiatry, Oct 2003, vol. 17, no. 4, p. 223-231, 0213-6163 (Oct-Dec 2003)

Author(s): Chatziandreou, Maria, Madianos, Michael G., Farsaliotis, Vasilis C.

Abstract: Data on a comparative study between a group of 26 primiparous women who gave birth to a child after an homologous In Vitro Fertilization Treatment (IVF) and a group of 26 women also primiparous, who gave birth to a child after a natural conception, were analyzed to explore the prevalence of psychopathology in the IVF group as opposed to the control group. No differences were detected as regards the psychological parameter of depression between the two groups. The results of the Eysenck Personality Scale point out that there are no differences between the personality profile of women who resort to IVF treatment and women who conceive naturally, as no statistically significant differences were discovered in three of the four sub-scales of the EPI among the two groups. There was a differentiation only in the first sub-scale (psychoticism), where the IVF group recorded lower scores to a statistically significant degree. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Source: PsycInfo

Full Text:

Available from *Free Access Content* in [European Journal of Psychiatry](#)

Title: Psychosis associated with gonadorelin agonist administration.

Citation: The British journal of psychiatry : the journal of mental science, Sep 1999, vol. 175, p. 290-291, 0007-1250 (September 1999)

Author(s): Mahe, V, Nartowski, J, Montagnon, F, Dumaine, A, Glück, N

Source: Medline

Title: Lupron-induced mania

Citation: Biological Psychiatry, January 1999, vol./is. 45/2(243-244), 0006-3223 (15 Jan 1999)

Author(s): Rachman M., Garfield D.A.S., Rachman I., Cohen R.

Language: English

Abstract: Background: Gonadotropins and sex hormones are intimately related to the stability of affective states. Patients with affective disorders may demonstrate abnormal levels of sex hormones and gonadotropins. It is therefore possible that affective disorder patients may experience mood dysregulation by synthetic sex hormones and gonadotropins like lupron. Methods: A case report of a young woman with a history of endometriosis and a past history of irritability and depression is described. Treatment of the endometriosis with lupron induced a manic episode. Results: The lupron- induced mania was successfully treated with a mood-stabilizing agent, lithium carbonate. Conclusions: Patients with a history of affective disorder may develop manic episodes when treated with Lupron. Mood-stabilizing agents are helpful in ameliorating this unwanted effect.

Publication Type: Journal: Article

Source: EMBASE

Title: Depressive symptoms associated with gonadotropin-releasing hormone agonists

Citation: Depression and Anxiety, 1998, vol./is. 7/4(171-177), 1091-4269 (1998)

Author(s): Warnock J.K., Bundren J.C., Morris D.W.

Language: English

Abstract: The gonadotropin-releasing hormone (GnRH) agonists are a relatively new class of drugs that are potentially effective in treating disorders that are aggravated either by estrogen or testosterone. GnRH agonists are effective in the treatment of endometriosis, as well as other disorders, such as advanced prostate cancer, precocious puberty and uterine leiomyomata. While the GnRH agonists reduce the extent of the endometrial lesions and the occurrence of pelvic pain associated with endometriosis, these agents are associated with physical and psychiatric side effects. The adverse effects of these agents are consistent with the physiological effects of ovarian suppression, such as vasomotor instability, vaginal dryness, and headaches. Preliminary results of a prospective, double-blind placebo-controlled study and an open label trial indicates that depressive mood symptoms increase in women treated with GnRH agonist therapy for endometriosis. Additional evidence suggest that sertraline effectively manages depressive mood symptoms associated with GnRH agonist therapy. The reason for the decline in mood on GnRH agonists is postulated to be associated with the decline in estrogen levels. Effective treatment strategies for depressive mood symptoms in women on GnRH agonists therapy may offer insight into the mechanisms of action of estrogen on mood.

Publication Type: Journal: Article

Source: EMBASE

Full Text:

Available from *John Wiley and Sons* in [Depression and Anxiety](#)

Available from *John Wiley and Sons* in [Depression and Anxiety](#)

Title: Future use of clomiphene in ovarian stimulation. Psychic effects of clomiphene citrate

Citation: Human Reproduction, 1998, vol./is. 13/11(2986-2987), 0268-1161 (1998)

Author(s): Siedentopf F., Kantenich H.

Language: English

Publication Type: Journal: Short Survey

Source: EMBASE

Full Text:

Available from *Oxford University Press* in [Human Reproduction](#); Note: ; 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.

Available from *Highwire Press* in [Human Reproduction](#)

Title: Anxiety and mood disorders associated with gonadotropin-releasing hormone agonist therapy.

Citation: Psychopharmacology bulletin, Jan 1997, vol. 33, no. 2, p. 311-316, 0048-5764 (1997)

Author(s): Warnock, J K, Bundren, J C

Abstract: Gonadotropin-releasing hormone (GnRH) agonists are synthetic derivatives of the native decapeptide produced by the hypothalamus. These agents cause a reversible suppression of the synthesis and release of luteinizing hormone (LH) and follicle-stimulating hormone (FSH) by the anterior pituitary gland. With GnRH agonist therapy, there is a resulting loss of endogenous ovarian gonadotropin stimulation and a severe hypo-estrogen state consistent with castrate levels of estrogen. Recently, GnRH agonists such as leuprolide and goserelin have been noted to be effective in treating mild to severe endometriosis. Side effects of these agents are consistent with the physiological effects of ovarian suppression, such as vasomotor instability, vaginal dryness, and headaches. However, despite some reports of emotional lability as an adverse effect of GnRH agonists, it appears that the occasional, rather severe psychiatric consequences of these agents are underappreciated. In this article, we present the case reports of 4 women of reproductive age with no prior psychiatric history who were treated with a GnRH agonist for endometriosis. These women developed symptoms consistent with various psychiatric disorders, including panic disorder and major depression with and without psychotic features. Three of these patients were given sertraline while on GnRH agonist therapy, which improved their mood and anxiety symptoms. Women undergoing GnRH agonist therapy may provide a model with which to investigate mood disorders during the perimenopausal stage of life.

Source: Medline

Full Text:

Available from *Free Access Content* in [Psychopharmacology Bulletin](#)

Available from *ProQuest* in [Psychopharmacology Bulletin](#)

Title: Gonadotropin-associated psychosis in perimenstrual behavior disorder.

Citation: Hormone research, Jan 1993, vol. 40, no. 4, p. 141-144, 0301-0163 (1993)

Author(s): Constant, M, Abrams, C A, Chasalow, F I

Abstract: Sexually provocative and violent behavior have been reported as a result of excess androgens. We now report a temporal relationship between increased gonadotropin levels and behavioral changes in two adolescent girls who presented with a history of aggressive and bizarre sexual behavior coincident with the onset of menarche. We evaluated the possibility of a cyclical hormonal cause with daily measurements of gonadotropins, androgens and estradiol levels and correlated the results with periodic reports on the girls' behavior. We concluded that a correlation exists between periods of extremely violent and sexually provocative behavior and peaks of gonadotropin hormone secretion, even though androgen levels were normal. Treatment with medroxyprogesterone acetate (Depo-Provera) in one case and with leuprolide acetate (Lupron-Depot) in the other suppressed

gonadotropin levels, and behavior improved markedly. Thus, the behavioral changes (or psychosis) seen in these girls might have been induced by increased levels of gonadotropins.

Source: Medline

Title: Psychotic reaction after in vitro fertilization (IVF)

Citation: Journal of in vitro fertilization and embryo transfer : IVF, April 1988, vol./is. 5/2(114), 0740-7769 (Apr 1988)

Author(s): Bourrit B., Martin-Du Pan R., Benchouk D., Biondo M., Stiksa E.

Language: English

Publication Type: Journal: Letter

Source: EMBASE

Title: Endocrinology and psychosis

Citation: British Medical Bulletin, 1987, vol./is. 43/3(672-688), 0007-1420 (1987)

Author(s): Ferrier I.N.

Language: English

Abstract: A number of hormonal conditions, notably disorders of thyroid function and pituitary dependent Cushing's disease, are associated with the development of a psychotic illness. Abnormalities of anterior and posterior pituitary hormones are seen in psychotic illness - dysregulation of thyroid and adrenal function is relatively common. However, the interpretation of these observations is problematical and no one mechanism has been implicated. Hypothalamic peptides are crucial in hormonal regulation but also have extensive CNS distributions and this is likely to be the focus of future research.

Publication Type: Journal: Review

Source: EMBASE

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.
