

Psychotropic treatment in patients undergoing gynaecological procedures

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BACKGROUND

Around 27% of the adult population in Europe has at some point suffered from a mental disorder in the past year. Patients with psychiatric illness have different needs and require specific medication review prior to surgery in view of the risks from anaesthesia, the direct and indirect effects of psychotropics, risk of withdrawal symptoms, and risk of psychiatric recurrence or relapse. Gynaecological patients, particularly those going through the menopausal transition phase have an associated risk of psychiatric conditions especially mood disorders.

This audit is set to determine the link between psychotropic drug use in patients seen at gynaecological pre-operative assessment clinic (POAC), the most encountered diagnosis, how this relates to age together with analysis of most common drugs used to treat these patients.

METHODS

Data about 123 patients from 24 weekly POAC was collected. The number of patients listed in each clinic was documented together with the patient's age. Patients on psychotropic medication were analysed to note diagnoses of each case and treatment used.

RESULTS

21.1% of patients suffered from a mental health illness requiring psychotropic medication. Their average age was that of 51 years. The most common diagnosis was depression, summing up to 9.8% of all patients, followed by anxiety at 6.5%.

CONCLUSION

Depression and anxiety are leading mental health illnesses both in this cohort and the general population. Such patients have lower pain threshold which affects their recovery. Some psychotropics have severe interactions with anaesthetic thus need to be stopped prior to surgery after evaluation of risks such as drug withdrawal and deterioration in mental health.

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INTRODUCTION

Around 27% of the adult population in Europe has at some point suffered from a mental disorder in the past year. Such psychiatric conditions include psychotic disorders, anxiety, depression, substance abuse and eating disorders.¹

Neuropsychiatric disorders in Europe accumulate to 15.2% of disability-adjusted life years (DALYs), thus being the 3rd most common cause, followed by cardiovascular diseases accounting for 26.6% and malignant neoplasms accounting for 15.4%.²

Overall females have significantly higher rates of mental health disorders when compared to males (except for substance use and psychotic illness). The female gender is a significant predictor of the need for prescription of mood altering psychotropic drugs. In the older population depression, organic brain syndromes and dementias are the leading mental health problems, with higher prevalence in females.²

Gynaecological patients, particularly those going through the menopausal transition phase have an associated risk of psychiatric conditions especially mood disorders. Several longitudinal studies revealed that females in the menopause transition are up to twice as likely to experience a depressive disorder, compared to the premenopausal period, independent of a history of depression.³

This audit is set to determine the link between psychotropic drug use and patients seen at gynaecological pre-operative assessment clinic (POAC), the most encountered diagnosis, how this relates to age together with analysis of most common drugs used to treat these patients.

MATERIALS AND METHODS

The study was conducted at Mater Dei Hospital, Malta and approved by both the local audit committee and by the data protection management. Data from 24 weekly POAC of a gynaecological firm was collected. This accumulated to 6 months of POAC held, from September 2018 till February 2019. The total number of patients listed in each clinic was documented together with the patient's age. Patients who were on psychotropic medication were analysed further to note diagnoses of each case and what type of treatment was being given.

RESULTS

Out of a total of 123 patients who attended one of the 24 POACs analysed for this study, 26 were suffering from at least one psychiatric condition requiring use of psychotropic medication, representing a total of 21.1% of the patients seen.

The age range of patient attending this clinic was between 19 to 83 years of age. The average age of the patients was 48 years, whilst the average age of the patients on psychotropic treatment was that of 51 years. The most common diagnosis in this cohort of patients was mood disorder, specifically, depressive disorder of varied severity. In total 12 patients were at some point diagnosed with depression, that is 9.8% of all patients seen in clinic during the 6 months being analysed. Depression was the diagnoses in 46.2% of the patients having a form of psychiatric disorder. The second most common diagnosis was anxiety disorder, a total of 8 patients (6.5% of all patient seen and 31.9% of patients with a psychiatric diagnosis). Other diagnoses encountered during the analysis include; sleep disorders, developmental disorders (particularly attention deficit and hyperactivity

disorder, seen predominantly in the younger patients), psychosis and schizophrenia. The number of each case and their equivalent percentage of the total can be noted in the table below (table 1). Three of the patients seen, 11.5% (of psychiatric patient), reported more than one psychiatric condition.

The age groups of patients with mental health illness revealed that the majority of patients were post menopausal, the most common age group being that between 61 and 80 years of age. The second most common subgroup was females between the ages of 21 and 40 years. Other age groups and the percentage of patients in each can be noted in the table below (table 2).

Treatment analysis revealed that half of the psychiatric patients were prescribed monotherapy whilst the other half was making use of more than one psychotropic drug. The most common drug class prescribed was an antidepressant, 19 patients meaning 73.1% of psychiatric patients were on antidepressants, particularly selective serotonin reuptake inhibitor (SSRI) followed by serotonin–norepinephrine reuptake inhibitor (SNRI) and tricyclic antidepressant (TCA) (table 3). Antipsychotics were the second most common prescribed drug of choice in this cohort, atypical being more common than typical antipsychotics (8 versus 5 patients of the total) followed by benzodiazepines, antihistamines and mood stabilizers (table 4).

Table 1 Numbers of patient with different psychiatric diagnosis

Diagnoses	Number of patients (from a total of 123)	Percentage from total psychiatric cases	Percentage from total of patients seen
Mood disorders	12	46.2%	9.8%
Anxiety disorder	8	31.9%	6.5%
Psychosis/ Schizophrenia	4	15.4%	3.25%
Sleep disorder	3	11.5%	2.45%
Developmental disorder	2	7.7%	1.63%

Table 2 Ages of patients with psychiatric condition

Age group	Number of patients (from a total of 123)	Percentage from total psychiatric patients
<20	2	7.7%
21-40	6	23.1%
41-60	5	19.3%
61-80	12	46.2%
>81	1	3.8%

Table 3 Number of patients on different classes of antidepressants

Class of antidepressant	Number of patients (from a total of 123)	Percentage from total patient on psychotropic treatment
SSRI	16	61.5%
SNRI	2	7.7%
TCA	1	3.8%

Table 4 Number of patient on other psychotropic drugs

Drug class	Number of patients (from a total of 123)	Percentage from total patient on psychotropic treatment
Antipsychotics	13	50%
Benzodiazepines	6	23.1%
Antihistamines	6	23.1%
Mood stabilizers	3	11.5%

DISCUSSION

Out of a total of 123 patients, 26 patients were suffering from at least one psychiatric condition requiring use of psychotropic medication, representing a total of 21.1% of the patients seen.

Depression is the most common mental health disorder encountered in this particular cohort of patients representing a total of 9.8% of 123 patients seen over 6 months. Mood disorder is followed by anxiety disorder at a rate of 6.5%. These numbers reflect general prevalence rates where 7.8% of the population is known to suffer from anxiety and depression, these being the most common mental health illness.⁴

Symptoms of anxiety include feeling worried, fearful, irritability, breathlessness, hyperventilation, palpitations, gastrointestinal disturbances, trembling and palpitations.

Symptoms of depression on the other hand include low mood, anhedonia, anergia, feeling of hopelessness, guilt, low self worth, inability to maintain concentration, changes in appetite and sleeping difficulties.

Certain links have been made between hormonal fluctuations and an increase in prevalence of depression in women particularly during the phases of puberty, prior to menstruation, during the postnatal period and in perimenopause, suggesting that hormone changes might be triggers for depressive symptoms.⁵ Further studies however have found no well based correlation between hormonal changes, mainly the falling and fluctuating levels of estradiol and corresponding increases in levels of follicle-stimulating hormone (FSH) and luteinizing hormone. Thus, at present, the literature indicates no consistent relationship between

circulating estradiol/FSH levels and depression.⁶

As previously noted, females in the menopause transition are up to twice as likely to experience a depressive disorder, compared to the premenopausal period, independent of a history of depression.³ Low mood, sleep disturbance and low libido, are possible symptoms of depression but also happen to be common experiences of menopause independent of mood disturbance. Such a phenomenon is clinically significant for both management decisions and monitoring of response to treatment. Furthermore, this highlights the broad nature of menopausal symptoms and the potential clinical value in creating menopause-specific tools for mental health.

With regards to treatment, SSRIs were found to be the most commonly prescribed drugs amongst patients on regular psychotropic medication. SSRIs are in fact the first line treatment option when it comes to medication use in cases of depression and anxiety. TCAs are less used and one should keep in mind that this class of drugs carries a higher chance of overdose which could be dangerous in patient with risk of suicide. Some side effects of these SSRIs worth mentioning are headache, dry mouth, dizziness, insomnia, sexual dysfunction, nausea and weight changes. Metabolically, SSRIs do not tend to dysregulate glycaemic control as opposed to TCAs which have been found to cause deterioration in the metabolic situation of the patient.⁷

These patients being seen at preoperative clinic in preparation for surgery under general anaesthesia would need medication review. Some psychotropic drugs such as lithium, monoamine oxidase inhibitors, TCAs, and clozapine interact with certain types of

anesthesia; thus it is important to highlight their use to an anesthetist. These psychotropic drugs present with increased physical risks, including withdrawal symptoms, thus qualifying for American Society of Anesthesiologists Classification 3. On the basis of physical risks, they would require discontinuation however from the perspective of the risk of withdrawal together with psychiatric relapse and recurrence, these individuals deserve integrated management from both anaesthetist and psychiatrist. Some interactions of note include, TCAs causing an increased response to anticholinergics such as atropine which may lead to postoperative confusion. Serious side-effect have been reported in 21% of patients receiving antipsychotic treatment, these include extrapyramidal symptoms such as sedation or hypotension.⁸

Mood stabilisers such as lithium, used in bipolar disorder, may cause hazardous risks in surgery. This is mostly seen when haemodynamic instability occurs and renal excretion becomes impeded. Therefore, lithium discontinuation is recommended before surgery. Lithium can be stopped at once because no withdrawal symptoms occur and thus should be discontinued 72 h before surgery since it has a half-life of 24–36 hours. Sodium depletion decreases renal excretion of lithium and can lead to lithium toxicity. Prevention of excess absorption of lithium can be prevented pre-emptively via the administration of sodium-containing IV fluids during the peri-operative period. ECG monitoring should be done to monitor various cardiac abnormalities due to lithium. In the post-operative period, once normal ranges of potassium, sodium and creatinine are obtained, and the patient is considered haemodynamically stable, she should be able

and allowed to drink, and lithium should be restarted. This is most important because the psychiatric risk of recurrence or relapse is hazardous. The only reason not to stop lithium is minor surgery with local anaesthesia.⁸

The implications of outcome of psychiatric versus non psychiatric patients, mainly patients suffering from depression include; lower pain threshold, higher pain sensitivity and increased self reported pain intensity.⁹ Furthermore, patients with depressive disorder were found to have associated pain and self reported anxiety symptoms. This can affect the postoperative state of the patient possibly resulting in the need for additional analgesia and prolonged hospital stay which can in itself place the patient at increased risk of hospital acquired infections, decline in independence with self care and risks from immobility as deep vein thrombosis and pressure sores. In cases of patient suffering from anxiety one might note an increase in patients' need for information about the procedure and to a certain extent demands of reassurance. In such instances the person obtaining consent for the surgery should be familiar with the procedure, risks and complications rates to give the patient clear details and offer reassurance when possible.

The limitations of this audit include the fact that the sample included only the patients seen over six months and that the cohort was limited to those seen by one specific consultant. One can also mention that some patients might have been in disease remission and not on active treatment when seen at POAC and thus not included in the number of patient suffering from mental health illnesses.

CONCLUSION

Out of a total of 123 patients who attend one of the 24 pre-operative assessment clinics

analysed for this study, 26 were suffering from at least one psychiatric condition requiring use of psychotropic medication, representing a total of 21.1% patients. Depression is the most common mental health disorder encountered in this particular cohort of patients representing a total of 9.8% of 123 patients and 46.2% of the mental health diagnoses seen in this particular clinic. The second most

common reported diagnosis was anxiety disorder, representing 6.5% of all patients seen and 31.9% of the patients with a psychiatric diagnosis. The most common drug class prescribed was an antidepressant, 19 patients, meaning 73.1% of psychiatric patients were on antidepressants, most commonly an SSRI.

REFERENCES

1. Gender and women's mental health, World Health Organisation 2019. Retrieved from https://www.who.int/mental_health/prevention/genderwomen/en/
2. Mental Health, Data and resources, World Health Organisation 2019. Retrieved from <http://www.euro.who.int/en/health-topics/noncommunicable-diseases/mental-health/data-and-resources>
3. Brennan A. Menopause and mental health. *Women's Health* 2018;20:3
4. Common mental health disorders. Guidance and guidelines NICE 2011
5. Albert, Paul R. "Why is depression more prevalent in women?". *Journal of psychiatry & neuroscience : JPN* 2015;40(4): 219-21
6. Rössler W, Ajdacic Gross V, Riecher Rössler A, Angst J, Hengartner MP. Does menopausal transition really influence mental health? Findings from the prospective long term Zurich study. *World Psychiatry* 2016 Jun;15(2):146-54
7. Deuschle M. Effects of antidepressants on glucose metabolism and diabetes mellitus type 2 in adults. *Current opinion in psychiatry* 2013 Jan; 1;26(1):60-5
8. Attri JP, Bala N, Chatrath V. Psychiatric patient and anaesthesia. *Indian journal of anaesthesia* 2012 Jan;56(1):8
9. Hermesdorf M, Berger K, Baune BT, Wellmann J, Ruscheweyh R, Wersching H. Pain sensitivity in patients with major depression: differential effect of pain sensitivity measures, somatic cofactors, and disease characteristics. *The Journal of Pain* 2016 May 1;17(5):606-16