Efficacy of Novel Antidepressant Drugs in Comparison to Conventional Antidepressant Drugs

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Abstract
This case report is about a 63 year old female patient showing an exacerbation of major depression after a stressful life event. Three different antidepressant drugs were administered. The chronic antidepressant medication of citalopram was replaced by bupropion, which improved the decreased positive effects. Taking this chronic antidepressant medication, the patient succeeded in getting over another stressful life event, an anti-cancer therapy.

Keywords: Antidepressant drug; Bupropion; Citalopram; Clomipramine; Decreased positive effect; Major depression

Introduction
Major depression is treated by antidepressant drugs. These drugs are monoamine reuptake inhibitors and exert different therapeutic effects upon the depressant symptoms. In this case report, three different antidepressant drugs, i.e. clomipramine, citalopram and bupropion were prescribed [1]. Here, our aim is to point out the improved efficacy of the selective dopamine and noradrenalin reuptake inhibitor bupropion as a chronic medication in major depression [2].

Case Report
The clinical case report of a 63 year old female patient with a diagnosed major depression of a severe form is reported. She was working as a nurse in a children's hospital and was living with her father. She took over her father's care who was suffering from Alzheimer's disease. After her father's death, she developed symptoms such as a prolonged sadness and sleep disturbances with an early awakening and an improved mood in the evening, and she had more and more difficulties to perform her work as a nurse. When an acute exacerbation of her depressant symptoms occurred, the diagnosis of major depression was made and she was treated with an infusion of citalopram (50 mg), a drive activating antidepressant drug. After the acute treatment, the patient was treated orally with citalopram (40 mg), a selective serotonin reuptake inhibitor, but she complained about sleepiness and a decreased drive. The patient showed weight gain, constipation, an increased Intraocular pressure and a prolongation of the QT segment in the ECG, which can be considered as adverse effects of the treatment with citalopram. She was prescribed eye drops, and yearly an E.C.G was registered. After one year, she failed the acute treatment, the patient was treated orally with citalopram (40 mg), a selective serotonin reuptake inhibitor bupropion, which improved the decreased positive effects. Taking this chronic antidepressant medication, the patient succeeded in getting over another stressful life event, an anti-cancer therapy.

Discussion
In this case report, three different antidepressant drugs were administered. In the phase of acute exacerbation of major depression, clomipramine, a tricyclic antidepressant drug which has a drive increasing effect was given as an infusion. Clomipramine improved the acute depressant symptoms. An adverse effect might be suicide attempts, but the patient showed a good compliance. Clomipramine is a serotonin and noradrenalin reuptake inhibitor with no specific effect [3]. As a chronic medication, the selective serotonin reuptake inhibitor citalopram was prescribed [1]. Citalopram had an antidepressant effect, however adverse effects appeared (sleepiness and decreased drive). The Hamilton Depression Rating Scale showed the persistence of depressant symptoms and decreased positive effects, i.e. the lack of motivation, drive and energy [4]. Citalopram showed a safe effect, because it exerted sedating properties. The question could be made whether the patient would have had the drive and the compliance to accept and get over the anti-cancer therapy, if the antidepressant medication was maintained, and in sum the depressant symptoms were improved. She was diagnosed with a colon carcinoma of the colon ascendens with the classification T3N2M0. She was treated with chemotherapy and an excision of the tumor was carried out. After the treatment, she remained continent. One year after the tumor therapy was finished, her depressant symptoms were stable and she went on taking the antidepressent medication with bupropion (150 mg per day). The patient is still well treated and has continued to take the bupropion medication.
inhibitor was administered [2]. The decreased positive effects, i.e. the lack of motivation, drive and energy were improved, and the Hamilton Depression Rating Scale had a better score. The patient was no longer sleepy and showed more activity. When the diagnosis of a colon carcinoma was made in the prevention examination, the patient showed a good compliance and performed all necessary therapies. During the therapies, the patient was active, and after a remission was diagnosed, the patient showed a satisfactory score in the Hamilton Depression Rating Scale. In this case report, major depression was aggravated by a stressful life event, the death of the patient’s father. Bupropion ameliorated the depressant symptoms very much and improved the decreased positive effects so that the patient could get over another stressful life event, the anti-cancer therapy.

Conclusions

This case report shows the different therapeutic and adverse effects of three different antidepressant drugs. Besides, it emphasizes the clinical superiority of the novel selective dopamine and noradrenalin reuptake inhibitor bupropion, which showed better scores in the Hamilton Depression Rating Scale and improved drive, motivation and energy. In contrast to the selective serotonin reuptake inhibitor citalopram, the patient succeeded in recovering from another stressful life event, the anti-cancer therapy. After the anti-cancer therapy was finished and a remission was diagnosed, The depressant symptoms did not get worse. Bupropion, which ameliorated the decreased positive effects, prevented an exacerbation of the disease when another stressful life event appeared [2,5]. The adverse effects of some days of insomnia could be managed by a slight hypnotic medication. The patient suffered from some adverse effects of citalopram, for example an increased intraocular pressure, constipation and E.C.G. changes. The possible adverse effects of bupropion, namely psychotic or manic symptoms did not appear, hypertension was treated and controlled by an antihypertensive drug. Consequently, the patient had controlled adverse effects after taking bupropion and profitted from its therapeutic effect in coping with the anti-cancer therapy.

References