

Case Report

Selective Serotonin Reuptake Inhibitor (Fluoxetine) Treat the Recurrent Epistaxis; A Rare Case Report

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ABSTRACT

According to estimates, majority of people in their lifetime experience epistaxis, and approximately 6% of patients with epistaxis, Because of this problem refer to their doctor. Severe bleeding from the nostrils, nasal or nasopharyngeal cavity or the inner part called epistaxis. Epistaxis commonly known as nose bleeding and is a common problem for many people. Epistaxis usually occurs for various reasons and in most cases the cause is not completely understood. Fluoxetine is an antidepressant drug and under family of selective serotonin reuptake inhibitors (SSRI). Antidepressants are used for the treatment of a wide range of diseases such as depression and other mental illnesses and mood disorders. These medications help people to improve their condition and help prevent self-harm and suicidal thoughts and actions. In this case presentation we report a patient with recurrent epistaxis which treated by Fluoxetine.

Keywords: Fluoxetine, SSRI, Selective Serotonin Reuptake Inhibitor, epistaxis

INTRODUCTION

Epistaxis is a very common complaint of patients whom referred to many types of physicians. It has been estimated to affect 10–12% of the general population [1]. Most of the cases are self-limited but some of them require medical treatments. The treatments are divided into medical and surgical procedures. Antidepressant drugs usage increased 400% between the 1990s and mid-2000s, and is a popular drug in America and has been reported to be the most frequently used drug in persons 18 to 44 y of age. (2) Selective serotonin reuptake inhibitors (SSRI) are one of the most commonly administered antidepressants. (3) SSRI (e.g. Citalopram, Fluoxetine, Fluvoxamine, and Sertraline) are prescribed for mood disorders including depression, anxiety, and obsessive–compulsive disorders. (4) there has been reported some side

effects of SSRI in different studies. In the current report we describe a patient with epistaxis whom treated with SSRI.

Case presentation

A 42 years old woman with history of recurrent epistaxis from 4 years old ago whom referred to psychology departments for depression was evaluated. Primary exam and evaluations were performed. table 1 Coagulation and platelet aggregation evaluations results were in normal range (table 2, 3)

This case had history of epistaxis from 4 years ago and underwent 5 times cauterization by otorhinolaryngology's. During these years there was no complete treatment for this case and several admissions were performed. Due to weak response to these treatments the patient underwent hematologic assessment by valuable labs. But all

of these tests including coagulopathy tests were in the normal range.

During our evaluation we found that the patient had major depression and Fluoxetine 20 mg/day was prescribed for this case. After one of the drug usage the epistaxis was completely removed and the case had no bleeding. For approving this idea

Table1. Hematologic assessment of this case

Test	Result	Unit	Test	Result	Unit
WBC	5900	/CUMM	PLT	231000	/CUMM
RBC	4.02	MIL/CUMM	FERRITIN	14.85	MG/ML
HB	10.3	G/DL	IRON	30.6	MICG/DL
MCV	80.6	FL	TIBC	410	UG/DL
MCH	25.6	PG			

we stop the Fluoxetine administration but the response was amazing. Following this stop, bleeding was noticed again. Then the prescription of Fluoxetine was initiated and the bleeding was stopped. It seemed that administration of Fluoxetine had blocked the nasal bleeding.

Table2.Result of coagulations tests study

Test	Result	Test	Result
Factor 13	(Within Normal range)	Factor 5	(Within Normal range)
Factor 8	122 (Within Normal range)	Thrombin time	(Within Normal range)
Factor 9	88 (Within Normal range)	Reptilase time	(Within Normal range)
Factor 11	98 (Within Normal range)	VWF activity	(Within Normal range)
Bleeding time	4.25 (Within Normal range)	VWF antigen	(Within Normal range)
Prothrombin time	12 (Within Normal range)	fibrinogen	302 (Within Normal range)
INR	1 (Within Normal range)	Factor3	55 (Within Normal range)
PTT	35.4 (Within Normal range)		

Table 3. Results of Platelet aggregation evaluations

Test	Result	Normal	Unit
Ristocetin 0.75 mg/ml	8	10	%
Ristocetin 1.00 mg/ml	18	23	%
Ristocetin 1.25 mg/ml	31	52	%
Ristocetin 1.50 mg/ml	55	78	%
APP2*10-5m	65	71	%
APP4*10-6m	39	42	%
APP2*10-6m	18	19	%
Collagen 200 ug/ml	70	81	%
Arch.acid 500 ug/ml	61	58	%
Platelet rich plasma	300	300	10* ⁹

DISCUSSION

Epistaxis is more common in patients with Hypertension or sclerosis of blood vessels and in patients receiving chemotherapy or patients with leukemia. In other cases, such as the availability of internal defects in blood vessels cause bleeding which may not be so obvious. Many of these cases will be treated easily and some needs medical treatments. Fluoxetine (Fluoxetine) is an antidepressant of the selective serotonin reuptake

inhibitors used to treat depression, obsessive compulsive disorder, panic disorder and Bulimia nervosa. Unusual dreams, abnormal ejaculation and other sexual problems, anxiety, dry mouth, flu-like symptoms, insomnia, tremor, nausea, nervousness, sweating, drowsiness, skin reactions are some of this drugs side effects.

In this study we reported the one of the rare complications of Fluoxetine which affect the nasal bleeding and control it. This reason may be due to

this effect of SSRI in which down regulate serotonin transporters on platelets, as they do in neurons, producing a reversible serotonin deficiency in such cells. Serotonin has an important effect in amplifying platelet activation and promoting aggregation.(5-7)Another reason in this case may be due to that Fluoxetine decrease the self-injurious. It is thought that self-injury might be one of the reasons of recurrent bleeding in such patients. Fluoxetine removed this psychological problem and therefore resulted in treatment of epistaxis.

CONSENT

"All authors declare that 'written informed consent was obtained from the patient for publication of this article and accompanying images.

ETHICAL APPROVAL

"All authors hereby declare that all experiments have been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki."

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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