

SEVERE HYPONATREMIA INDUCED BY ESCITALOPRAM: A CASE REPORT.

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BACKGROUND

- Hyponatremia is a potential side-effect of selective serotonin reuptake inhibitors (SSRIs).
- The risk of hyponatremia is higher in the elderly and case reports suggest other risk factors like multiple comorbidities and use of other drugs causing hyponatremia.

PURPOSE :

To describe a case of a middle aged female without risk factors of hyponatremia who developed rapidly severe hyponatremia after starting escitalopram administration.

MATERIALS AND METHODS

- ✓ A 49-year-old female was admitted to hospital because of headache, nausea and vomiting that had been coming on for three days.
- ✓ **MEDICAL HISTORY:**
 - Recurrent depressive disorder
 - Chronic pancreatitis.
 - Bronchitis.
- ✓ During her admission the patient showed sweating, shaking, paresthesias and difficulty in breathing associated to respiratory alkalosis that improved with oxygen therapy.

DRUG HISTORY :

Escitalopram 5 mg/day , three days before admission.

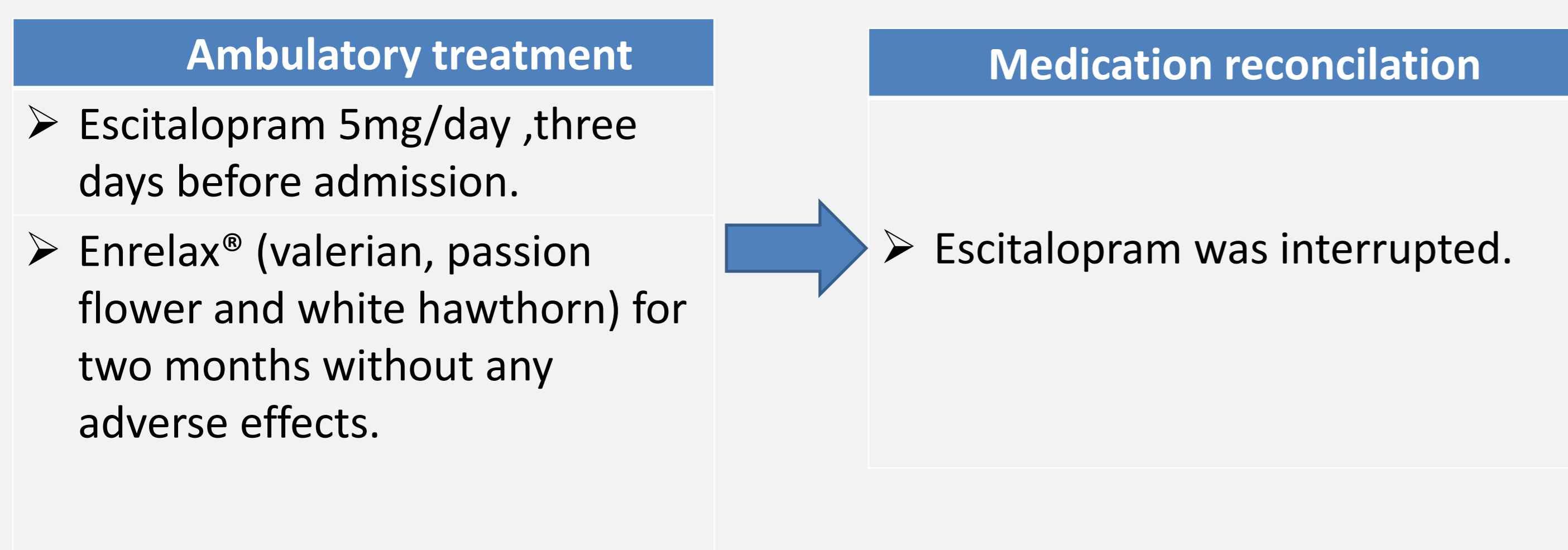
- Enrelax® (valerian, passion flower and white hawthorn) for two months without any adverse effects.

LABORATORY VALUES

Serum sodium	110 mEq/ L
Serum osmolarity	228 mOs/Kg
Urinary Sodium	127 mEq/L

RESULTS

Management of hyponatremia



Assesment of causality

- A literature search in PUBMED using the terms “escitalopram” AND “hyponatremia” showed 19 cases reports published.
- The search using the terms “valerian* OR plant* OR botany OR hawthorn* OR passionflower* OR herbal AND hyponatremia” showed no published case reports of hyponatremia caused by Enrelax®.
- Naranjo’s algorithm was used to assess causality and escitalopram came out as probable.

Laboratory values	Emergency assistance		Hospitalization				
	At admission	+ 16 h	+21h	+ 2 days	+ 55 h	+ 63h	+3,5 days
Serum sodium(mEq/L)	110	115	120	116	115	119	130
Serum osmolarity (Mos/kg)	228	235	242	233	-	-	273
Urinary sodium (mEq/L)	127	-	-	157	-	-	193
Treatment	500 mL saline + 6 amp 10 mL NaCl 20% (501 mEq Na/liter) at 21 mL/h (10,5 mEq Na/h)	500ml saline (77mEq Na) in 3 h	500ml saline at 84 mL/h during 4 h (12,9 mEq Na/h) Then 500 mL saline at 42ml/h during 20 h (6,4 mEqNa/h)	500ml saline at 84 mL/h during 8h (12,9mEq Na/h)	500 mL saline + 2amp 10 mL NaCl 20% (278,8mEqNa/liter) at 42 mL/h (11,7mEq Na/h) during 15 h	2g NaCl oral	

Adverse Drug Reaction Probability Scale

Question	Yes	No	Do Not Know	Score
1. Are there previous conclusive reports on this reaction?	+1	0	0	1
2. Did the adverse event appear after the suspected drug was administered?	+2	-1	0	2
3. Did the adverse event improve when the drug was discontinued or a specific antagonist was administered?	+1	0	0	1
4. Did the adverse event reappear when the drug was readministered?	+2	-1	0	0
5. Are there alternative causes that could on their own have caused the reaction?	-1	+2	0	0
6. Did the reaction reappear when a placebo was given?	-1	+1	0	0
7. Was the drug detected in blood or other fluids in concentrations known to be toxic?	+1	0	0	0
8. Was the reaction more severe when the dose was increased or less severe when the dose was decreased?	+1	0	0	1
9. Did the patient have a similar reaction to the same or similar drugs in any previous exposure?	+1	0	0	0
10. Was the adverse event confirmed by any objective evidence?	+1	0	0	1
Total Score:				6

CONCLUSIONS

- This case suggests an important association of escitalopram and hyponatremia in a young woman without the existence of other risk factors.
- Given the wide use of SSRI, it is important to consider hyponatremia as a preventable and reversible adverse effect and to monitor sodium levels even in patients with other risk factors

Score	Interpretation of Scores
Total Score ≥9	Definite. The reaction (1) followed a reasonable temporal sequence after a drug or in which a toxic drug level had been established in body fluids or tissues, (2) followed a recognized response to the suspected drug, and (3) was confirmed by improvement on withdrawing the drug and reappeared on reexposure.
Total Score 5 to 8	Probable. The reaction (1) followed a reasonable temporal sequence after a drug, (2) followed a recognized response to the suspected drug, (3) was confirmed by withdrawal but not by exposure to the drug, and (4) could not be reasonably explained by the known characteristics of the patient’s clinical state.
Total Score 1 to 4	Possible. The reaction (1) followed a temporal sequence after a drug, (2) possibly followed a recognized pattern to the suspected drug, and (3) could be explained by characteristics of the patient’s disease.
Total Score ≤0	Doubtful. The reaction was likely related to factors other than a drug.