

Exenatide Worsens Depression and Causes Suicidal Ideation Relapse?:

A Case Report

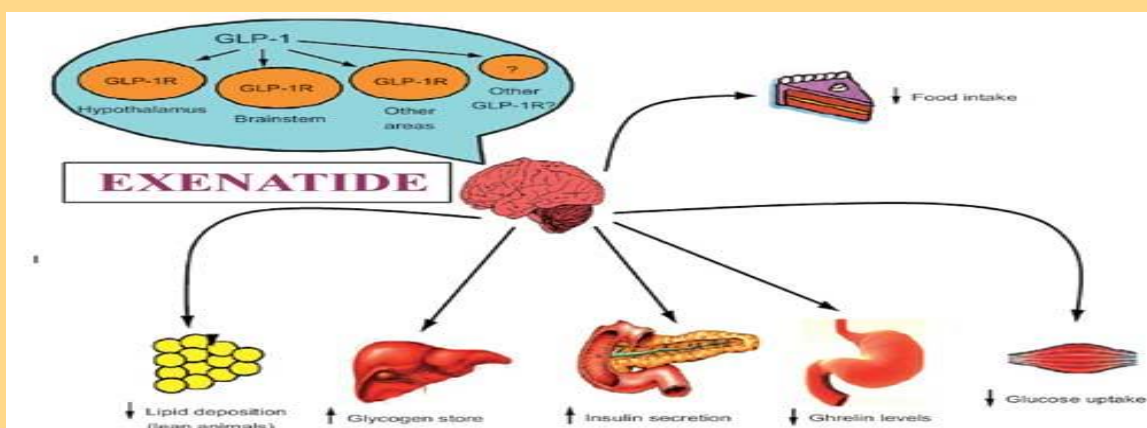
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INTRODUCTION:

- Exenatide is a glucagon-like peptide-1 receptor (GLP-1R) agonist, belonging to the family of incretin mimetics, approved for use in Type-2 Diabetes.
- GLP-1Rs have been found in the brain, but whether agonists like Exenatide influence brain glucose metabolism is unknown.
- It is not a known depressogenic drug, although there is a case report of Exenatide induced depression in a geriatric patient.
- Exenatide has even been tried as a disease modifying drug for Parkinson's Disease for its neuroprotective/neurorestorative abilities, but psychiatric benefits/side effects are not fully understood.



OBJECTIVES:

- With reporting this case, we aim to draw attention to a possible and not well recognized side effect of Exenatide (which is not a very common medication for pediatric population) in child and adolescent mental health settings.

CASE BACKGROUND:

- A 14-year-old boy who had a history of type 2 diabetes mellitus (DM) and Insulin treatment, admitted with severe depressive complaints and recurrent suicidal ideations.
- He was clinically depressed for almost half a year with moderate to severe suicidal ideations for the last 2 months.
- He scored 34 on Children's Depression Inventory (CDI) and his symptoms were evaluated not to be related to any other medical or psychiatric condition.
- He was gradually started on Sertraline 100 mg/day and Supportive Therapy.
- His suicidal ideations were much less severe by the end of the second week of treatment, and he stopped reporting them within the first month.
- After 3 months of depression treatment with Sertraline 100 mg/day and Supportive Therapy, his CDI dropped to 15 and he was also subjectively feeling better.

CASE DESCRIPTION:

- At that stage, due to his recently increased motivation for his DM treatment, he was started on Exenatide 5 mcg/day added to his already existing Insulin regime.
- After the dose increase to 10 mcg/day during the first month of introduction, both he and his family reported that he started feeling significantly more depressed and irritable, and that his suicidal thoughts relapsed.
- His CDI score was back to 32.
- During continuous evaluation, possible depressive factors have been questioned to find no indications for such a relapse.
- He was added Aripiprazole 5 mg/day with little effect.
- He was hospitalized twice, both for glucose regulation and depressive symptoms.
- Sertraline was changed to Fluoxetine with no difference. He continued scoring over 30 for each CDI, with little or no benefit from the changing treatment, although he had never attempted suicide.
- After a total of 4 months, his Exenatide was stopped and his mood responded almost immediately.
- Within a month he was feeling better, so Aripiprazole was cut off and he continued with 20 mg Fluoxetine.
- His CDI score was now 17.
- He continued receiving Fluoxetine 20 mg for 3 more months, then he stopped the medication himself, but continued exercising and suggested social activities.
- His depressive symptoms in complete remission after 3 months from stopping Fluoxetine 20 mg, with a CDI score of 9.

DISCUSSION:

- As this is a single case report, it does not directly prove that Exenatide is a depressogenic drug, however it raises a question mark about the possible relationship with worsening depression and Exenatide treatment in pediatric age.
- Further research with more patients and different age groups is necessary to explore psychiatric effects of Exenatide.

Bibliography

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