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A RARE CASE OF QUETIAPINE INDUCED LBBB

General Medicine

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ABSTRACT

Quetiapine is an atypical antipsychotic approved for the treatment of patients with psychotic disorders.
Quetiapine toxicity produces various signs and symptoms including hypotension , CNS depression ,sinus tachycardia , QT prolongation and hyperglycaemia.
Less commonly serious cardiac arrhythmia and seizures can occur .
Antipsychotics believed to cause prolonged QRS interval through sodium channel antagonism similar to type 1a Anti arrhythmics
Quetiapine exhibits some sodium channel blockade activity which may lead to QRS prolongation and might lead to LBBB.
We reported a case of a 40 yr old Male with history of ingestion of 50 tablets of quetiapine ,each 50 mg dosage . His ECG showed LBBB after five hours of hospital admission .
Management consisted of gastric lavage, the use of activated charcoal, IV saline and was kept under observation for 24hrs in CCU and after 24hrs of onset of LBBB, Patient ECG showed spontaneous correction of LBBB.
Cardiac workup for LBBB didn't show any abnormality .
He was discharged home in a stable medical condition after psychiatric evaluation.
Any antipsychotic overdose needs active investigation for its toxicities.

BACKGROUND

Antipsychotics overdose depends on specific drug used.
The diagnosis of LBBB is through ECG Findings .
ECG findings of LBBB shows widening of QRS >120msec, Broad notched or slurred R waves in lead I, avL, v5,v6 , Absent Qwaves in V5, V6

KEYWORDS

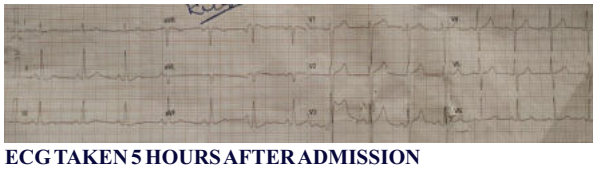
CASE REPORT

- A 40years old male with no chronic illness walked into our ER in view of ingestion of quetiapine tablets 50 mg 50 in number mixed with alcohol in the month of February 2019 in an attempt to suicide in view of his personal problems
- Patient was using quetiapine 50 mg one tablet daily since 8 months for alcohol deaddiction

ON EXAMINATION-

- He is conscious coherent oriented denied any active complaints
- His blood pressure was on lower side i.e 90/60 mmhg was corrected after administration of a bolus of normal saline
- Rest of his vitals and physical examination was found to be normal
- A 12 lead ECG was taken and found to be normal
- 5hrs after hospital admission patient was found drowsy but obeying commands then his BP was checked an 12 lead ECG repeated ,which showed widening of QRS complexes revealing a new onset LBBB
- Patient denied any active complaints

AT THE TIME OF ADMISSION '



ECG TAKEN 5 HOURS AFTER ADMISSION

INVESTIGATIONS-

Routine blood investigations

- LFT,RFT,CBP,Serum electrolytes-normal
- Viral markers-negative
- TROPONIN T –NEGATIVE
- 2 ECHO-NORMAL STUDY
- RBS-142 mg/l
- Serial troponin and ECG were obtained all of which turned negative
- His cardiac work up dint show any ischemic component
- INVESTIGATIONS AT DISCHARGE
- TROPONIN T-NEGATIVE
- ECG – F/S/O LBBB
- 2 ECHO –NORMAL STUDY
- After psychiatric evaluation patient was discharged in stable condition

DISCUSSION

- Atypical antipsychotics are widely use than 1st generation antipsychotics because of their better side effect profile
- Quetiapine toxicity produces various signs an symptoms including hypotension, CNS depression and sinus tachycardia
- Less commonly serious cardiac arrhythmias and seizures can occur
- Antipsychotics are believed to cause prolonged QRS interval through sodium channel antagonism similar to type 1a antiarrhythmics
- Quetiapine exhibits some sodium channel blockage activity which may lead to QRS prolongation and might lead to LBBB.
- Symptoms of CNS depression are primarily mediated through antagonistic effects of quetiapine on serotonergic 5HT2A and moderate antagonistic effect on dopamine Type 2 D2 receptors.
- Prolonged tachycardia is explained by an antagonistic effect of quetiapine on alpha 1 receptors.
- Hyperglycaemia ay be related to 5HT2 receptor antagonism.
- On admission, management included gastric lavage , activated charcoal administration , IV saline and observation .
- He was kept under observation for 24hrs in CCU and after 24hrs of onset of LBBB, Patient ECG showed spontaneous correction of LBBB.

Cardiac workup for LBBB didn't show any abnormality .
He was discharged home in a stable medical condition after psychiatric

evaluation.

- Any antipsychotic overdose needs active investigation for its toxicities.

CONCLUSION

So concluded the case as LBBB due to quetiapine overdose after ruling out other causes of LBBB i.e CAD

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CONFLICTS OF INTEREST- NIL
CONSENT – consent was taken

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