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Available online at: http://www.iajps.com *A Case Report*

A CASE REPORT ON PIPERACILLIN- TAZOBACTAM INDUCED TRANSAMINITIS

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Abstract:

Drugs are found to be a very important etiology for liver injury. Closely 75% of idiosyncratic drug reactions results into different kinds of liver failure problems [1]. Piperacillin is extended spectrum ureido penicillin which when combined with tazobactom is linked with rare cases of liver injury. Here we report a 62 year old male patient presented with transaminitis which occured after taking resistant antibiotc Piptaz. The enzyme levels came down once the drugs was stopped. The physicians prescribing antibiotics should always carefully monitor the culture reports and also liver function once this drug is administered.

Keywords: *ALT, AST, Piptaz, GCS, CT, SAH*

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INTRODUCTION:

Piperacillin Tazobactam is a very frequently used antibiotics worldwide [2] It belongs to the combination category of fourth generation extended spectrum pencillin and beta lactamase inhibitor.The main know side effects includes hypersensitivity reactions, neurotoxicity, hepatotoxicity, electrolyte and acid base disturbances and bleeding disorder.[3]Transminitis or elevated transaminases is a very serious side effects of the drug. Large clinical trials report ALT elevations from 6% -15% and bilirubin elevation from 3-5% in patients receiving piptaz and there abnormalities were solved by quickly stopping the drug [4]

Elevated serum aminotransferase and alkaline phosphatase does not thus indicate the degree of liver dysfunction but also it points out the level of cellular injury which occurred during the past few hours [5]The normal range of AST (SGOT) is about 5-40 IU/l and for ALT (SGPT) is 7-56IU/l of serum. These enzymes are mainly present in high concentration within the hepatocyctes. Elevations occur in these enzymes gets lysed in response to some kind of noxious insult which result in the expulsion of cell content to circulate into blood. In most cases of drug induced transaminitis, the transaminase levels usually come down after the drug is stopped [6]

CASE REPORT:

A 62 year old male patient was admitted in our hospital allegedly involved in a road traffic accident with history of loss of consciousness. He was initially treated at another center where he was intubated in view of low GCS then he was shifted to our hospital. CT was done which revealed presence of bilateral intraparenchymal bleed left greater than right in parietal region with surrounding edema and SAH in interhemispheric fissure. At the time of admission patient was intubated and ventilated. Patient was obeying commands, pupils were 2mm reactive to light bilaterally, and right lower limb swelling was noted. Pulse was 94bpm, BP was 170/110mmHg, RR was 28/min, SPO2 was 100% were noted. DSA was performed on second day and Tracheostomy on third day. Inj. Cefuroxime Sodium 1.5gm IV BD , Inj. Cerebroprotein Hydrolysate 60mg IV Inj. Levipil 500mg IV B.D was started on the same day of admission. Opinion was sought from the senior consultant neurologist and his advice was incorporated in the treatment. On the second day Cefuroxime Sodium was escalated to Piptaz 4.5g iv q.i.d. After the administration of Inj.Piptaz SGOT and SGPT values started elevating. Antibiotic culture report was verified and found that piptaz was resistant in the patient but it was being continued since 3 days. The senior consultant revealed that Inj. Piptaz may cause transaminitis and he discontinued Piptaz and started Inj. Colistin 3MIU IV TDS, T.Silymarin 140MG BD was also added. Slowly the SGPT and SGOT values started decreasing. It decreased from 255 U/L to 32 U/L and 425 U/L to 50 U/L.

TEST	1st Day	2nd Day	3rdDay	4th Day	5thDay	6thDay	7thDay	Normal level
SGOT	35	145	177	189	218	239	255	5-40IU/l
SGPT	50	214	254	283	291	336	425	7-56IU/l

DISCUSSION:

One of the common scenarios encountered by physicians during their clinicial practice is elevated liver enzymes. For most of the clinicians it is definitely challenging to evaluate such problems without any symptoms [7]. Piptaz is a very common and effective drug associated with severe toxic effects during its use. Eventhough alteration in level of liver enzyme could be a normal physiological phenomena, it can also refelect in potential liver injury in certain people.[8] Hence it shows the necessity of regular assessment and management, which can include

1. Discontinuing the possible offending drug.
2. Regular laboratory monitoring.
3. Specific therapy may not be available and most of the time, management is supportive.
4. Liver biopsy can help in monitoring.
5. Adding hepatoprotective [5]

In our case the first symptoms of transaminitis started from the second day of administration of Piptaz 4.5g. The culture report showed that this drug is resistant for patient but the physician failed to monitor it and the patient continued to be in the resistant antibiotic treatment. Once the problem was identified the drug was stopped and changed to Colistin 3MIU IV tds. Also hepatoprotectant were added. Kraleti et al reports the clinicians should be aware regarding the toxic effect of drug and in our case it was essential to monitor these complications.

CONCLUSION:

Piptaz is concluded to be the most commonly used antibiotics used in the hospital settings and is associated with hepatic injury. Interpreting abnormalities in liver function test is a usual problem faced by clinicians [9] Hence clinicians should be aware about Piptaz as a drug capable of causing hepatic problem and thereby it is essential to monitor for the rare but serious complication.

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