LITHUM USE IN PREGNANCY

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CASE REPORT

This is a report of a 23year old parous patient at 34weeks of her third pregnancy. She had caeserian section in 2003 , due to raised blood pressure at 36 weeks gestation, and was delivered of a female baby.

Her blood pressure was controlled using intravenous Labetalol infusion.

Five months after her confinement, she was diagnosed with Bipolar affective disorder, by the psychiatrist and was commence on Lithium tablets 400mg daily, which was increased to 600mg , but had to be reduced back to 400mg , because of toxicity on the higher dose., which led to her admission with vomiting ,fever ,diarrhoea and headache. The lithium serum level was 1.6mmol/1.

She gave a previous history of depression, prior to her first pregnancy which was managed with antidepressants, but were stopped before she became pregnant

Mrs. MH has been taking oral contraceptive pills, following her last childbirth, unfortunately she had a breakthrough bleeding in February 2005 and when later she did a home pregnancy test, it was positive. Utrasound scan confirmed an ongoing intra-uterine pregnancy at 7weeks. She promptly stopped taking the Lithium tablets. Her symptoms worsens and ,she was recommence back on the lithium tablets 400mg at 25 weeks gestation ,which was tailed off to 200mg daily. She declined the screening test for *Dpwn's* syndrome/Spina bifida, but a detailed scan at 18weeks revealed no fetal abnormality.

In this index pregnancy, she had been admitted on average 15 times, for blood pressure control with Nifedipine Retard 20mg three times and Labetolol 300mg four times daily. She is planned for delivery at 36 weeks gestation.

She was induced at 37completed weeks of gestation. Labor was uneventful. She had a spontaneous vertex delivery of a live male baby weighing 3.7 kilograms.

DISCUSSION

Lithium carbonate is an effective drug for prophylaxis and treatment of major affective disorders.! In -utero exposure to lithium during the first trimester of pregnancy ,might be associated with an increased risk of cardiac anomalies, especially the rare Ebstein's anomall.This patient promptly stopped taking the drug as soon as she discovered she was pregnant and scan at ISweeks revealed no cardiac anomaly. High resolution ultrasound examination and fetal echo cardiography at this gestational age will be associated with a small likelyhood of discovering cardiovascular anomalies given the lower incidence of Ebstein anomaly, but would be particularly reassuring to the patient.

Lithium has a very narrow safety margin between therapeutic and toxic levels3. Therefore patients could easily developed toxicity. This patient exhibited such symptoms with a high serum level 1.6mmol/l (NR<O.l).Lithium has effects on endocrine organs and kidney, often patients presenting with polyuria,polydipsia and goitre, but fertility remains normal. This patient had no such complications and her fertility was not compromised.

Initial information regarding the

teratogenic risk of lithium treatment was derived from retrospective studies and many women who inadvertently conceive while on lithium therapy, choose to terminate the pregnancy because of perception of teratogenic risk on this basis.4 More recent epidemiological data indicate that ,the teratogenic risk of first trimester lithium exposure is lower than was previously suggested.5

Discontinuation of lithium therapy can have a devastating effect for the mental and physical health of a young woman with major affective disorder. This patient had to recommence the lithium therapy again at 25weeks gestation ,due to the fluctuating symptoms of depression and anxiety. We did not consider placing her on carbamazepine ;a prophylactic alternative to lithium due to its teratogenic action: developmental delay 20%fingernail hypoplasia26%and minor craniofacial defects, 11 %6 Like other women who are taking psychotropic agents , women with bipolar disorder who are taking lithium need to attend carefully to family planning. This patient was on OCP. Such patients should be made aware of attendants risks of lithium therapy of major malformations within the first trimester ,which is greater than that of the general population.

For patients who discontinue lithium treatment during early stage pregnancy, but whose condition begin to deteriorate subsequently, reintroduction of the drug during the second or third

trimester would not be expected to be associated with any increase risk of malformation. This patient had additional scans which revealed no fetal abnormality.

CONCLUSION

There is still a strong association between maternal lithium treatment during the first trimester of pregnancy and Ebstein's anomaly of the heart of the baby. Though recent epidemiological data indicate the risk may be lower than previously suggested. The management of a pregnant women with bipolar disorder , should carefully weigh the risk and the benefit of lithium treatment in these patients.

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ERRATUM

1. In our edition of 2006 4(2)1-8
   Mayun AN, Salami SA.; Review of Lymphoma Classification. We printed Malami as Salami.
   It should read Mayun AA; Malami SA. Review of Lymphoma Classification.

2. 2007 5(1) 28-32
   Evaluation of blood component request and ultrasound in Maiduguri North Eastern Nigeria.
   It should read: Evaluation of blood component request and Utilization in Maiduguri North Eastern Nigeria.

All errors are regretted.

Editor-in-Chief.