Live birth following treatment of post molar choriocarcinoma

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ABSTRACT

A G_3P_{1+1} who underwent dilatation and curettage (D and C) for persistent vaginal bleeding after a month of molar evacuation, underwent successful treatment of choriocarcinoma with methotrexate and was able to have normal baby weighing 2800gms with good Apgar score and normal placenta. This shows that a normal menstruation and uncomplicated term delivery can be expected after complete chemotherapy for gestational trophoblastic neoplasia (GTN).

Keywords: Post molar choriocarcinoma, chemotherapy for gestational trophoblastic neoplasia, choriocarcinoma.

Choriocarcinoma after hydatidiform mole (HM) is well recognized phenomenon.[1] As many as 18.0% (29/165 cases of HM) had progression to invasive mole or choriocarcinoma.[2] These conditional were diagnosed during post molar monitoring of âhCG assay. Besides this vaginal bleeding has been one of the presenting complications of molar pregnancy suggestive of choriocarcinoma which has been diagnosed at dilatation and curettage (D and C).[3,4]

Choriocarcinoma, one of the components of gestational trophobalstic neoplasia (GTN) is a curable malignancy. This has been shown by many women who have experienced regular menstrual cycle within six months of completing last chemotherapy treatment [all most all, 100.0% (n=57)], or become pregnant if they wished to, such that 95.0-97.0% women desirous of pregnancy were able to conceive and bear at least one live birth in 86.0%.[5-8] It is an interesting finding to note that the pregnancy have advanced up to term in 66.0-85.0%.[6,8] Most of the pregnancy have occurred following, methotrexate as a single agent chemotherapy.[7]

We are going to report one such case who delivered a live baby girl, after the chemotherapy of post molar choriocarcinoma consisting of methotrexate as a single agent. This is an unusual experience, as such a tedious regular follow up of gestational trophoblastic disease (GTD) does not happen usually in Nepalese context in most circumstance and is worthy for publication.

CASE

21yrs G_2P_{1+0}, last child birth (LCB) a full term vacuum delivery 5 years back presented to the hospital emergency on 18/7/2062 with amenorrhea, excessive nausea and vomiting for 15 days in association with per vaginal bleeding for a day. On examination, there was pallor, tachycardia and a larger than date uterus. Fundal height corresponded to 22 weeks size while period of gestation (POG) was only 13 weeks. USG (Fig.1.) was suggestive of gestational trophoblastic disease (GTD) for which suction evacuation was done. Histopathology confirmed it to be complete mole. Post evacuation urinary âhCG showed a declining trend on two readings. After a month of suction evacuation she had sudden

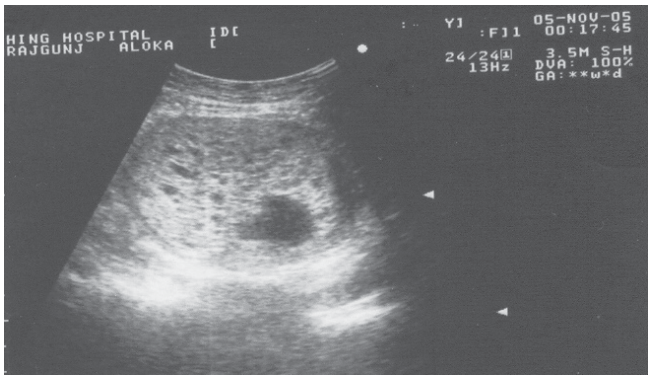

Fig. 1. USG showing molar pregnancy

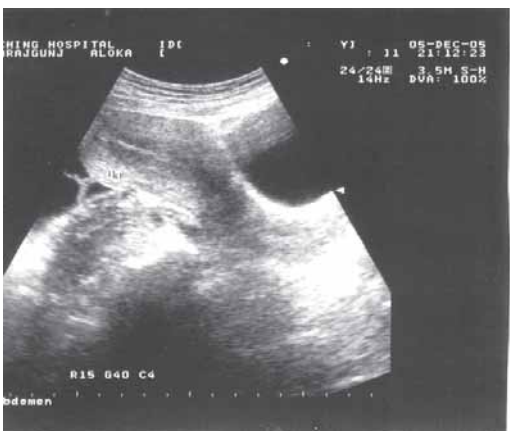

Fig. 2. Uterus showing empty uterine cavity after D&C

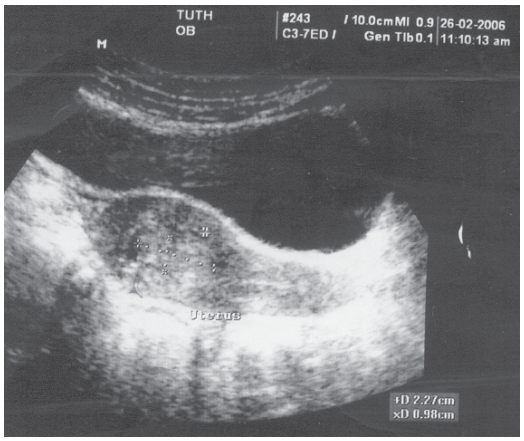

Fig. 3. Development of trophoblastic tumor on posterior wall of the uterus 83 days after D&C

heavy vaginal bleeding requiring emergency admission. Pallor was noted but vital signs were stable. On pelvic examination a uterus was 12 weeks size. Suction evacuation was repeated once again and the curetting were sent for histopathological evaluation. While histopathology result was awaited, uterine cavity was empty on USG (Fig. 2), but the urinary âhCG level showed a plateau that corresponded with increasing serum âhCG. A diagnosis of post molar GTD was made and treatment was planned accordingly. This was a time when a pelvic CT scan was suggestive of possible rectal invasion and USG showed growth in the uterus (Fig .3).

As WHO score confined her to a low risk group; chemotherapy with single agent methotrexate was discussed. It was insurgency period in Nepal and she lived in Thankot, quite a distance from our hospital. On patient's choice and general agreement, intramuscular (IM) Methotrexate 25 mg daily for 5 days was given as initial therapy. In the meantime, HPE result obtained was suggestive of choriocarcinoma. With this regimen, although there was steep fall in âhCG (Fig 4); absolute neutropenia, as well oral ulceration was observed from 4th cycle of chemotherapy. To prevent the drug toxicity, a switch to methotrexate with folinic acid rescue was considered the best for her although she was reluctant for a therapy that would require eight days of hospitalization. Nine cycles of chemotherapy was given in total, 3 cycles after âhCG was negative. Barrier method of contraception was chosen by the couple.

Some of the significant observation made during the management is logically described here. There was persistence of bilateral theca luteal cyst until 2nd cycle chemotherapy. Around the same time, MRI picture created confusion showing rectal invasion which was verified non existent on TVS. A mass in upper part of uterine cavity infiltrating on to the posterior uterine wall was an additive finding around the 5th chemotherapy cycle.

Absolute neutropaenia was corrected by neupogen a granulocyte colony stimulating factor given sub-cutaneously 24 h prior to chemotherapy and was continued for some time.

Folinic acid rescue was well tolerated as there were no oral ulcers, following this therapy.

She attended our Out Patient Department, 18 months from last cycle of chemotherapy, with amenorrhea for 2 months on 4/8/064. Diagnosis of pregnancy was made on the basis of positive urine pregnancy test and TVS. Her antenatal period was uneventful. She was delivered of a healthy female baby 2800gms by elective LSCS at 39 weeks of pregnancy. Her placental tissue on histopathological examination showed focal infarction with no evidence of trophoblastic diseases.

On post natal check up, both mother and baby are healthy. Baby is under absolute breast feeding and is followed in well baby clinic and receiving immunization as per schedule.

DISCUSSION

In this case of post molar choriocarcinoma with non metastatic disease, in which the pathology was confined to the uterus, a single agent chemotherapy methotrexate proved to be beneficial. **Methotrexate, leucoverin** rescue remarkably reduced the complications of oral ulcer, which was observed more consistently during 5 days course of methotrexate alone chemotherapy, given on patient's preference in view of shorter hospitalization. This was committed for the sake of child living very far off, in the time of insurgency when transport and communication were unreliable.

With the conception, we vigilantly followed her for the possibility of any related complications that was probable in pregnancy following chemotherapy for choriocarcinoma. These were blighted ovum to begin and ranged from fetal anomaly, growth retardation, fetal mortality and placenta accrete.[6,8] Chemotherapeutic

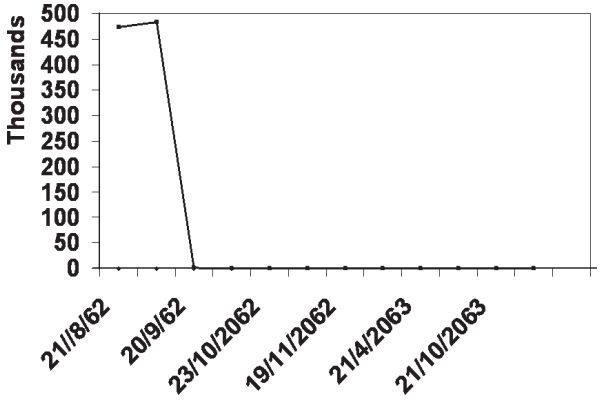

Fig 4: Steep fall in hCG level following chemotherapy

agents, mainly MTX and Act-D, appear to have no effect on fetal growth.[6] We were careful that no undesired complications should occur, so directly went for caesarean section.[9] Extra precaution were taken to confirm that the placenta was free of GTD by sending it to histopathological review.[10]

Recently, mother came for postnatal check up and baby for immunization. Both of them were fine. This is important as the incidence of choriocarcinoma subsequent to pregnancy in treated patients have been reported .[6,11] In conclusion successful management of post molar choriocarcinoma can be possible with single agent chemotherapy in view of safe pregnancy and delivery.

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