PREGNANCY FOLLOWING BILATERAL ADRENELECTOMY

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Bila'eral adrenalectomy has offered new hope to patients suffering from Cushings syndrome, as they can lead normal lives with substitution therapy. Reports of pregnancies after bilateral adrenalec'omy are rare in the literature, only 19 cases having been reported till now.[1]

CASE REPORT

S.K., 40 years old woman was admitted in the antenatal ward with 37 weeks' pregnancy. Her pregnancy had been uneventful, and she was admitted for assessment of her diabetic status and for planned delivery. She was a known case of diabetes mellitus from 1962 and had been stablized with Tolbutamide (Rastinon) 1 mg per day.

She had bilateral adrenalectomy for Cushing's syndrome in 1965. After that she had been on substitution therapy with tablets of prednisolone 5 mg. twice per day.

She had 5 deliveries, two of which were after the bilateral adrenalectomy. The patients obstetric and medical history is summarised below:

Married at the age of 22 years, 18 years ago. First, full term normal delivery 16½ years back at home—female alive and well. Second full term normal delivery 15 years back at home—female alive and well. Third full term normal delivery, 13 years back at home—female alive and well. Diabetes with pulmonary tuberculosis diagnosed in 1962.

Bilateral adrenelec'omy for Cushing's Syndrome in 1965. Fourth full term normal delivery in 1967 at P G.I. Hospital—male, alive and well. Fifth premature (35 weeks) normal delivery 1969 P.G.I. hospital—female alive and well.

After the last delivery she had been using conventional contraceptives (condom). Her date of last menstrual period was 15th December, 1970 and the expected date of delivery was 22nd September, 1971.

The patient came for her first antena'al check-up at about 37 weeks of gestation and was admitted for assessment of her diabetic status. On examination her B.P. was 120/80 mm. Hg , pulse 82/per minute, weight 44 kg. Hirsutism was also present. Cardiovascular and respiratory systems were normal.

On examination of the abdomen, two scars were observed in the lower subcostal region, striae present, height of fundus 34 weeks, vertex presenting, foetal heart sounds present.

Investigations revealed, Hb 11 gm.%, P.C.V. 31%, T.L.C. 4000, D.L.C. poly 68% lympho 32%, E.S.R. 54 mm. Urine albumin nil, sugar+.

Microscopic examination NAD. B'ood urea 23 mgm, serum Na 126 mEq; K. 44 mEq. Chlor'de 93 mEq. Blood sugar fasting 80 mgm% Postprandial 90 mgm%. Blood group O positive.

The patient had some urgent work at home so she was discharged at her request on 11.9.71 with advice to report to the antenatal clinic.

She reported back, however after 2 days with labour pains and absent foetal heart sounds. Labour progressed well and she delivered normally with assistance for mild shoulder dystocia a macerated female baby which weighed 3.5 Kg. The p'acenta weighed 450 gms. There were no obvious congenital abnormalities. The puerperium was uneventful and the patient was discharged in good condition.

Her next admission was on 27 3.1972 with six weeks' pregnancy for therapeutic abortion and vaginal tubal ligation. The indication for

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therapeutic abortion and tubal ligation were the medical and social indications and multiparity.

Vaginal tubal ligation and dilatation and curettage were performed under spinal anaesthesia. During the operation she maintained her vital signs well. 5% dextrose drip was given I.V. during the operation and 4 mgm. of Inj. Wyemesone was given I.V. after the operation. Postoperatively a random blood sugar was 247 mgm.% and accordingly 10 units of insulin was injected subcutaneously. The patient developed hypotension 3 hours after the operation and the blood pressure became unrecordable. She was treated intensively with corticoids and I.V. fluids and came out of the crisis over the next sixteen hours. The dose of corticoids was slowly tapered off till she was taking her usual dose and discharged on eleventh postoperative day in good condition.

Discussion

Nineteen cases in all are reported of pregnancies following bilateral adrenalectomy. Experience regarding pregnancy following bilateral adrenalectomy and diabetes mellitus is very meagre. Only 1 such case has been reported so far (Schenker, 1971). The combination of diabetes mellitus and bilateral adrenalectomy or Addison's disease is not very common. In fact only 4 cases are reported of pregnancy in patients with Addison's disease and diabetes mellitus (Osler and Pederson, 1962). In diabetes mellitus there is hyperglycaemia due to derangement in action of insulin whereas in Addison's disease or bilateral adrenalectomy there is hypoglycaemia due to deficient glucocorticoids. The combination of the two diseases does not seem to cancel out the effect on carbohydrate metabolism, in fact it makes the patient more difficult to manage.

The patient reported had two normal uneventful deliveries following bilateral adrenalectomy, whereas the third one ended in a stillbirth and shoulder dystocia. One previous delivery had been a premature one at 35 weeks' and the baby was alive and well. During the pregnancy reported, if decision for induction of labour had been taken at 37 weeks the stillbirth could have been avoided. Perinatal mortality after bilateral adrenalectomy is not high. Of the 19 cases reported, (Osler and Pederson, 1962) only 2 resulted in foetal losses. One was an intrauterine death in a case with pre-eclampsia and diabetes mellitus and the other due to prematurity in a case of early induction of labour.

Hence in such cases where diabetes is also a complicating factor early induction of labour should be thought of because of increased perinatal mortality after the 37th week.

Even though it is quite safe to carry on normal pregnancy to term after bilateral adrenalectomy, in the case reported, multiparity was the indication for surgical sterilization.

The episode of hypotension following the operation could be the result of inadequate replacement with cortisone. These cases generally require 200 mgm. cortisone I.V. on the morning of the operation and 100 mgm. I.V. in a 5% Dextrose drip with normal saline every six to eight hours.

Summary

1. Obstetrical career of a patient after bilateral adrenalectomy in whom diabetes mellitus was already present is reported.

2. After bilateral adrenalectomy she had 2 normal deliveries and one stillbirth. The stillbirth occurred probably due to diabetes mellitus, as it is well known that intrauterine death can occur in the last three weeks of gestation.

3. The stillbirth could have been prevented by resorting to induction of labour at 37 weeks.

4. The patient had an episode of hypotension following vaginal tubal ligation, probably due to inadequate replacement therapy.

References

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