

PULMONARY EMBOLISM ASSOCIATED WITH HYDATIDIFORM MOLE

(Case Report)

by

ANUSUYA DASS,* M.R.C.O.G.

BHAGWATI KOTWANI,* M.D., M.R.C.O.G.

Physiological deportation of the non-neoplastic trophoblast to the lungs has long been recognised. Pulmonary embolism by the trophoblast was first described by Schmorl (1893). Attwood and Park (1961) examined histological material from 220 pregnant, parturient and puerperal women. Trophoblastic emboli were found in 43.6% of the cases. Trophoblastic embolism was maximum near term, onset of labour and first 24 hours postpartum. Trophoblastic embolisation was highest in patients with hydatidiform mole and eclampsia. Demonstration of syncytial trophoblast in the circulating blood indicates that the process of deportation must be regarded as a constant migration of this tissue during pregnancy. The phenomenon of death-producing syncytial cell embolism is very rare and is much less recognised. Reviewing the literature, fatal embolism by the trophoblast has been reported in only 5 cases (Huges, 1930, Marcus, 1954, Trotter Tieche,

1956, Arnold and Bainboroug, 1957, and Robert Lipp, 1952). Three of these were associated with hydatidiform mole. The amount of trophoblastic tissue in hydatidiform mole is so great and its attachment to the villus so tenuous and fragile that escape to the lungs of lethal amounts would be quite understandable. The following case is reported on account of its uncommon features and the fact that no living case with this complication has been reported.

Case Report

Patient P., aged 45 years, 13th gravida, was admitted to the Irwin Hospital on 12-8-64 with history of amenorrhoea of 5 months, vomiting, pain in lower abdomen for 2½ months, cough with blood-tinged sputum off and on for the same duration. There was no history of bleeding per vaginam. Family and past histories were non-contributory. Menarche occurred at 14 years of age and cycles were regular 28 days with 4-5 days flow.

Obstetric history: 12 F.T.N.D. 9 living and 3 died in the neonatal period. Last delivery — 4 years ago.

Physical examination revealed an ill-looking patient. No oedema of feet. B.P. — 140/86 mm Hg; pulse — 100/minute, good volume and tension; temperature — normal. Lungs — clinically clear. Heart — tachycardia.

*Department of Obstetrics & Gynaecology, Maulana Azad Medical College, New Delhi.

Received for publication on 31-3-66.

Abdominal examination

Uterus, size of 18 weeks' pregnancy. 13-8-64 at 2 P.M. patient was sent for chest skiagram, at 3 P.M. she vomited 3-4 times and at 4 P.M. became extremely breathless and coughed out blood-tinged sputum, but there was no pain in the chest. She was severely orthopnoeic, respirations—52/min. cyanosis +, pulse—170/min. good volume and tension. B.P. 160/100 mm. Hg. Heart—P2 accentuated. Lungs—full of coarse crepitations. Diagnosis of acute pulmonary oedema was made and she was given O₂ inhalations, Digoxin, Aminophyllin, morphia and was put on $\frac{1}{2}$ hourly pulse, respiration and B.P. record. After 15 hours of treatment (14-8-64) pulse—136/min. good volume and tension, respirations—24/min., Lungs—clinically clear. Heart—P2 accentuated and pulmonary systolic murmur. When patient improved she stated that at home about 3 weeks ago she had a similar attack of dyspnoea, cough with blood-tinged sputum which continued for some time. In view of the above history and clinical findings, a diagnosis of recurrent pulmonary embolism was made. The episode of the evening of 13-8-64 was thought to be an attack of pulmonary oedema superimposed on small multiple pulmonary emboli. Homan's sign negative, no tenderness of calf muscles, no other evidence of leg vein thrombosis. Patient was put on anticoagulants, antibiotics, injection of Imferon, and digoxin was continued.

Following Investigations were done:—

12-8-64: 1 Hb: 8 gm%, W.B.C.: 14, 800/ccm, polys—82%, lymph, 16% easino 2%.

Blood group—A. RH positive, blood urea—50 mgm%, Fundus examinaiton—NAD.

X-ray chest—except increase in markings there was no other abnormality seen.

E. C. G.—showed right ventricular strain.

Urine—sugar & albumin, nil; micros—NAD.

Sputum repeatedly examined—No acid-fast bacilli seen. Bleeding time: 2 minutes 20 seconds; clotting time: 6 minutes 6 seconds.

Prothrombin time repeated on 20th, 27th August, and 2nd September—17.5 seconds,

35 seconds and 16 seconds (control 14 to 18 seconds).

As patient was a grand multi-gravida with repeated attacks of pulmonary embolism and no signs of improvement, abdominal hysterotomy and sterilisation was decided on 20-8-64, and patient was examined by the physician regarding suitability for operation under general anaesthesia; pulse 136 to 140 per minute good volume and tension, respiration 22 per minute B.P. 150/100 m.m. Hg. repeat x-ray chest-suspicious oligoemia of outer third of the lung fields. Repeat E.C.G. right ventricular strain.

As the pulse rate was still very high, anticoagulants, antibiotics and more liberal sedatives were continued. Operation was postponed till patient's condition improved. On 22nd August, 1964, patient complained of slight vaginal bleeding. prothrombin time 35 seconds, anticoagulants were stopped and clotting time was increased to 10 minutes and vaginal bleeding was thought to be due to anticoagulants.

On 2-9-64, uterus was opened by a transverse lower segment incision and hydatidiform mole diagnosed. As patient was 45 years old, a quick sub-total hysterectomy was performed; both ovaries were normal; one unit of blood transfused during the operation. Post-operative period—uneventful, discharged on 16-9-64.

2-11-66: Seen in O.P.D. patient well, no haemoptysis, pulse 84 per minute, good volume and tension, B.P. 140/80 m.m. Hg. lungs clear, X-ray chest—N.A.D.

Friedmans Test: negative.

Comments

This was a case of hydatidiform mole treated by sub-total hysterectomy, who was having repeated attacks of pulmonary embolism, and was treated by anticoagulants and antibiotics. This patient is interesting from several angles. Though the patient was admitted 19 days before operation the diagnosis of hydatidiform mole was only made at the

operation table as the uterine height corresponded to the period of amenorrhoea and there was no history of vaginal bleeding. As the patient was very ill, all attention was focussed on the cardiovascular system. Anti-coagulants, increase in the prothrombin and clotting time further confused the picture.

Acknowledgements

We are grateful to Dr. P. C. Dhanda, Principal Maulana Azad Medical College and Dr. P. Diesh, Medical Superintendent for permission to publish this case report.

References

1. Attwood, H. D. and Park, W. W.: J. Obst. & Gynec. Brit. Emp. 68: 611, 1961.
2. Douglas, G. W., Thomas, L., Carr, M. Cullen, N. M. and Morris, R.: Am. J. Obst. & Gynec. 78: 960, 1959.
3. Friedburg. Diseases of Heart. 1959.
4. Lip, R. G., Kindschi, J. D. and Roger, Schmitz: J. Obst. & Gynec. 83: 1644, 1962.
5. Marcus, P. M.: Obst. & Gynec. 3: 210, 1954.
6. Wileken, D. E. L., Mackenzie, K. M. and Goodwin, J. F.: Lancet. 2: 781, 1960.