POST-PARTUM PULMONARY ŒDEMA

SIR,—We read with interest the letters in *The Lancet* of May 12 on post-partum pulmonary œdema associated with therapy for premature labour.[1,2] The suddeness of respiratory distress, hypoxæmia, and X-ray evidence of pulmonary œdema raise the important question of the pathogenesis of this process.

We have recently seen a 21-year-old primigravida who had eclampsia at term. 6 h post-partum she became acutely dyspnœic with PO_2 36 mm Hg in room air. The hypoxæmia did not respond well to oxygen. Serial X-rays revealed diffuse alveolar infiltrates. The differential diagnosis between cardiogenic and non-cardiogenic pulmonary œdema was made difficult by the marked cardiomegaly on chest X-ray, a finding of uncertain significance in pregnancy. A Swan-Ganz catheter was inserted and pulmonary capillary wedge pressure of 7–8 mm Hg supported a diagnosis of non-cardiogenic pulmonary œdema or adult respiratory distress syndrome (ARDS).

The underlying pathophysiology of ARDS is a loss of alveolar-capillary membrane permeability resulting in extravasation of fluid, protein, and fibrin debris into the pulmonary interstitium and alveoli.[3] The distinction from cardiogenic pulmonary œdema, although critical, is frequently difficult on clinical grounds, and Swan-Ganz pulmonary arterial catheterisation is indicated to differentiate these conditions and to aid treatment.[4]

Findings in the patients presented by Dr Tinga and Dr Aarnoudse,[1] as in other similar reports,[5-7] indirectly suggest that a cardiovascular ætiology, probably on the basis of fluid overload, underlies the rapid development of pulmonary œdema. One report suggests both an increase in pulmonary arterial and venous pressure and an increase in pulmonary vascular permeability, but does not seek to differentiate these two mechanisms.[5] This distinction is made more difficult by the physiological changes in the cardiovascular system during pregnancy.

Investigation of pulmonary capillary wedge pressures in the pregnant woman with acute pulmonary œdema following tocolytic therapy is essential if the underlying mechanism is to be elucidated and the complication prevented.

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LAPAROSCOPY IN DIAGNOSIS OF PELVIC TUBERCULOSIS

SIR,—I was most interested in the letter from Mr Mendis and his colleagues (June 9, p. 1240). I have made a special study of tuberculosis of the female pelvic organs and I have had more than 600 patients with this condition under my care. I did laparotomies, for various reasons, in many of these patients, and in 67 I carried out total hysterectomy with removal of both tubes and ovaries.

In almost every instance extensive bowel adhesions were found on opening the abdomen, and in most the pelvic organs were screened from view by a layer of adherent bowel and omentum which had to be separated before proceeding with the operation. I now never use laparoscopy in the diagnosis of gynæcological tuberculosis because of the risk of bowel injury.

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NOMIFENSINE-INDUCED IMMUNE HÆMOLYTIC ANÆMIA AND IMPAIRED RENAL FUNCTION

SIR,—Nomifensine is a clinically effective non-sedative antidepressant with few or no anticholinergic or cardiovascular side-effects.[1] According to the manufacturers (Hoechst) nomifensine is now widely prescribed and its safety has been confirmed in several countries on experimental and clinical grounds. In France, since 1977, the drug has been given to over 250 000 patients without reported complications. Two cases of accidental overdosage have been reported[2,3] with no clinically severe adverse reaction.

We report here a case of immune hæmolytic anæmia and acute renal failure induced by nomifensine. Since May, 1978, the patient, a 50-year-old female, had had seven identical episodes of malaise, chills, abdominal pain, and fever, each of 2–4 h duration with sudden onset and followed immediately by the emission of dark urine which reverted to normal after a few hours. Slight transient jaundice was also sometimes noted.

A similar episode in July, 1978, was followed by oliguria for 7 days, and the patient was admitted to hospital. Clinical examination was non-contributory. Blood-urea-nitrogen was 141 mg/dl, serum-creatinine 23 mg/dl, and urinary 24 h urea excretion 3 g. Red-blood-cell count was 3 000 000/μl and hæmoglobin 10 g/dl, but reticulocyte-count and plasma hæmoglobin and haptoglobin levels were normal, probably because the hæmolytic episode had occurred 7 days earlier. A direct antiglobulin test on patient's red cells was strongly positive with anticomplement sera. Red cell glycolytic enzymes and hæmoglobin electrophoretic pattern were normal.

Before these episodes the patient had been under continuous levomepromazine, diazepam, and nomifensine therapy. Nomifensine had been discontinued in February, 1978, after 4 months but was resumed intermittently from May, 1978. The patient confirms that clinical reactions she experienced since that time started 1–2 h after she had taken a capsule of nomifensine.

The patient's serum contained a potent antibody which agglutinated normal red blood-cells in the presence of nomifensine. No agglutination was observed when the drug was omitted from the reaction mixture or when the patient's serum was replaced by other human sera. The drug did not bind to red cells because a drug/red-cell mixture which was incubated and washed did not react with serum. The antigen-antibody reaction is thus different from the penicillin-type immunisation where the drug binds firmly to the red-cell membrane.

Diuresis resumed under frusemide and renal function returned to normal in 20 days. The antibody titre decreased from 256 in July, 1978, to 8 in January, 1979, and hæmoglobin rose from 10 to 14·7 g/l over the same period. The patient was told to avoid nomifensine and has been well since then.

Some commonly used drugs (e.g., penicillin, stibophen, rifampicin, and glafenine) can provoke, in some individuals, an immune hæmolytic anæmia which may occasionally be associated with acute renal failure. Nomifensine is now used

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