
Thrombosis during Amniotic Fluid Embolism

June 23, 2004

The Editor

BJOG Editorial Office

Reference: Porat S, et al. Transient intracardiac thrombi in amniotic fluid embolism. *BJOG* May 2004, vol 111, pp. 506-510

Dear Sr,

We read with interest the article by Porat S¹. Thrombotic occlusions of major pulmonary arteries during amniotic fluid embolism were only reported three times in clinical series²⁻⁴. It remains unknown whether they are formed in situ or embolised from the pelvic or lower limbs.

We report another case⁵ where massive pulmonary emboli could be objectively demonstrated in a 32 year-old woman an hour later post cesarean. She suddenly developed hypotension, dyspnea, tachypnea and cyanosis. A few minutes later, generalized tonic-clonic seizures developed followed by respiratory arrest. Mechanical respiratory assistance was carried out with high inspiratory fraction of oxygen. By cardiac catheterization, massive occlusions in the main branches of the pulmonary arteries were demonstrated. Pressures (in mmHg) were: pulmonary artery: 50/31 and pulmonary capillaries: 18. Mechanical fragmentation of the thrombi was intended with a pigtail catheter obtaining partial recanalization. Profuse bleeding started in surgical wound, sites of vessel punctures,

oral and nasal cavities. Blood test showed consumptive coagulopathy. Fresh frozen plasma, cryoprecipitates plus platelets were transfused. Unfractionated heparin 500 IU/h by continuous IV infusion was later prescribed because of persistent hemorrhage. Pulmonary angiography has the potential advantage of allowing simultaneous thrombi aspiration or fractionation. Fibrinolytic therapy is contraindicated in these patients. Full dose anticoagulation, apart from the possibility of inducing further derangements of the hemostatic system, is probably insufficient in this constellation of massive lung emboli with shock. The value of angiography must be emphasized, since occlusion of the central pulmonary vasculature can occur in some cases. Despite the fatal evolution of our patient, the potential usefulness of the procedure deserves to be remarked.

Eduardo Malvino, PhD

María Bruno, PhD

Buenos Aires, Argentina.

References.

1. Porat S, Leibowitz D, Milwidsky A, Valsky D, Yagel S, Anteby E. Transient intracardiac thrombi in amniotic fluid embolism. *BJOG* 2004,111,506-510
2. Esposito RA, Grossi EA, Coppa G, Giangola G, Ferri DP, Angelides EM et al. Successful treatment of postpartum shock caused by amniotic

- fluid embolism with cardio pulmonary bypass and pulmonary artery thrombo embolotomy. Am J Obstet Gynecol 1990;163:572-4
3. Bauer P, Lelarge P, Hennequin L, Lambert H, Larcan A. Thromboembolism during amniotic fluid embolism. Intensive Care Med 1995;21:384
 4. Kent KJ, Cooper BC, Thomas KW, Zlatnik FJ. Presumed antepartum amniotic fluid embolism. Obstet Gynecol 2003;102:493-5
 5. Malvino E, Korin J, Bruno M, Gomez G, Medrano J, Miano J. Angiografía pulmonar en un caso de embolia de líquido amniótico y revisión de la literatura. Medicina Intensiva (Buenos Aires) 2001;18(2):52-7. Available at: www.sati.org.ar/2001/2/8.pdf

Note: this letter was declined on the basis of priority; space permit to publish only those ranked highest.