Correspondence

In reply: Steroids, atosiban and pulmonary oedema; is or may be a cause?

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In reply : Steroids, atosiban and pulmonary oedema; is or may be a cause?

We thank Guy et al.[1] for their interesting comments regarding the case we reported, describing the development of acute pulmonary oedema in a patient with preeclampsia. [2] They make a number of valid points.

We agree on the fact that it is difficult to be sure whether the combination of steroids and atosiban was a significant factor in the development of pulmonary oedema in our patient, due to the presence of other risk factors. We acknowledge that multiple other risk factors can be related to the development of pulmonary oedema in a patient such as ours, as was stated in the article.[2,3] Both transthoracic echocardiography and transoesophageal echocardiography were conducted and only slight mitral valve insufficiency was found, thereby excluding a potentially substantial causal factor. We agree that even a small increase in mitral valve insufficiency can be a "supplementary" risk factor in the development of acute pulmonary oedema.

The other potential risk factors mentioned by Guy et al.[1] are reasonable concerns, given the limited amount of information they received. However not all of these risk factors were present in our patient, who had an initial diagnosis of cervical shortening and for mobilisation reasons stayed on the maternity ward, with only intravenous (IV) access via an "IV clear connector". Her fluid intake therefore was purely oral. Also, the appearance and severity of pre-eclampsia evolved rapidly, such that due to the rapid onset of respiratory distress, anti-hypertensive treatment was not started before the caesarean section. In our correspondence,[2] we simply acknowledged that the combination of corticosteroid and tocolytic therapy *in a preeclamptic patient* is a risk factor for the development of acute pulmonary oedema. At no time did we state that it was the only risk factor in this complicated clinical case, where multiple comorbidities were present.

The summary of product characteristics (SmPC) for atosiban [4] contains a warning to be careful if atosiban is administered to pregnant women with twins. Respiratory events, such as dyspnoea and pulmonary oedema, particularly in women with multiple pregnancy, have been reported. [4] Atosiban is said to be contraindicated in "Eclampsia and severe pre-eclampsia requiring delivery" in the SmPC.[4] However an obstetrician will sometimes take the risk of using atosiban in these circumstances, in what they consider to be in the best interest of the patient and fetus. By reviewing the SmPC of atosiban we also found the statement that "As an antagonist of oxytocin, atosiban may theoretically facilitate uterine relaxation and postpartum bleeding. Therefore blood loss after delivery should be monitored."[4] That being said, regular arterial blood gas analyses are a superior method for the frequent evaluation of anaemia in patients.