Hoof Beats in Medicine

By Alisa Wamble, JD

Occasionally the sound of hoof beats should lead a medical provider to consider a zebra – instead of a horse – when evaluating a complex medical presentation.

This obstetrical case involved a 24 year old female who was pregnant with her first child. Megan[1] had no previous medical problems and had normal blood pressure, normal weight and she did not smoke. She had an unremarkable pregnancy until she was hospitalized at 32 weeks and 3 days due to severe epigastric pain, nausea and vomiting. On admission the patient had no fever, no contractions, no headache and fetal movement was positive with some uterine irritability. The plan was to observe Megan and work her up for possible pre-eclampsia with an atypical presentation. She was given a steroid injection, Demerol and Phenergan. Her lab results indicated a slight decrease in her platelets and elevated liver enzymes. Megan later reported "stabbing pain" in her epigastric region and she was given a second dose of Phenergan and Demerol. The next morning she reported that the pain was still present but better, and she was starting to feel contractions. Demerol and Phenergan were repeated twice that day.

Approximately 48 hours after her symptoms first began, Megan reported so much pain that she was unable to lie down and electronic fetal monitoring could not be continued. Her blood pressure was 170/104 and 172/91. Her oxygen saturation levels varied from 83 to 96. She described the pain as constant with no relief from Demerol. Megan's obstetrician, Dr. Hall, was paged at 1:52am. He ordered lab work and was at her bedside at 3:30am. At 4:00am, an EKG was performed (which was normal) and Megan received 10mg of Valium intravenously. After consulting with a maternal fetal medicine specialist over the phone, Dr. Hall made plans for a VQ scan to be performed in a nearby facility to rule out a pulmonary embolus (PE). Megan still had elevated blood pressure, constant pain and a headache. At 5:30am she was given 100mg of Demerol and was finally able to lie down for an ultrasound. At 6:08am, fetal monitoring was resumed which showed no variability, decelerations and probable late decelerations. Dr. Hall was notified of the fetal heart tracing at 6:25am and reviewed the strip several times, but he elected to proceed with the VQ scan (which did not show a PE). Megan returned to the hospital, and Dr. Hall assessed her at 9:45am. At 10:30am, Dr. Hall noted minimal variability, no accelerations, and late decelerations on the strip. At 11:48am, he discussed the need for a c-section but it was not performed until 2:31pm. At delivery the four-pound male infant was limp and pale with Apgars of 0, 1 and 2. Megan developed disseminated intravascular coagulation at the time of surgery. Her diagnosis was HELLP syndrome and atypical presentation of severe pre-eclampsia. She received transfusions and recovered. The baby, however, suffered permanent and severe neurologic damage.

A lawsuit was filed against Dr. Hall and the hospital which alleged multiple breaches of the standard of care: the defendants failed to recognize the clinical signs of fetal distress, failed to recognize and treat symptoms of preeclampsia and HELLP Syndrome, failed to refer Megan to a high risk specialist, and negligently allowed Megan's labor to progress longer than was indicated. In hindsight, Dr. Hall felt that he interpreted the fetal monitor strip incorrectly and should have delivered the baby much sooner. Our experts agreed and thought that earlier action was required.

Dr. Hall had focused on the new onset of "stabbing pain" in the epigastric region and consulted with a maternal fetal medicine specialist at a tertiary care center. While the experts did not uniformly agree with the decision to perform the VQ scan, they recognized this as an exercise of professional judgment which could be defended. However, once the VQ scan ruled out a PE, the consensus was that Dr. Hall dropped his guard as far as the baby was concerned. A labor and delivery nurse testified in her deposition that she thought the fetal monitor strip was concerning over a period of hours, but she did not share her thoughts with Dr. Hall. He was involved and reviewed the strip himself during the critical hours, but he did not refocus on the baby and was instead misled by the false security provided by the mother's negative VQ scan. Better communication between the members of the health care team could have led to recognition of the baby's deteriorating status.

This case was eventually settled by the defendants after protracted negotiations. The problematic fetal monitor strips, along with the lack of communication between Dr. Hall and the labor and delivery nurse, made the defense of the case difficult. It is unfortunate that in almost all medical malpractice cases, the plaintiffs and their experts have the benefit of 20/20 hindsight. This can be especially evident in cases with fetal monitor strips, radiological studies and electrocardiograms. In this situation, the medical problems experienced by the mother and baby were multi-factorial, and Dr. Hall focused on one problem to the exclusion of all others. Once the PE had been ruled out, he failed to consider that other problems might be ongoing which caused his interpretation of the fetal monitor strips to be skewed. Dr. Hall thought that he was hearing the hoof beats of a horse, but it turned out they were that of a zebra.

[1] All names have been changed.
