Baby with Meningitis Misdiagnosed as Bladder Infection, Inadequately Treated , becomes Deaf.

The records clearly show that this patient developed spinal meningitis and, secondary to that, had seizures and significant hearing loss. The hearing loss was on the basis of nerve/brain damage, not ear infections. I will discuss the care prospectively and point out areas of negligent care and what intervention should have taken place.

This patient was born on October 13, and was a full term pregnancy. The birth records reveal that she weighed 9 pounds 7 ounces and the Apgar scores were 9 out of a maximum of 10 at one minute and at five minutes. This is predictive of good neurological function. Up to age 6 months of age, she was performing according to appropriate standards.

On April 25, she was seen Dr. #1. The left eardrum (tympanic membrane) was injected (inflamed). Her throat was also inflamed. He diagnosed otitis media (ear infection), pharyngitis, and dehydration, but she was sent to the Emergency Room for further evaluation and disposition. She was seen in that emergency room on April 25 at night, at 10:20. Her previous temperature was 102.5, but at that time, it was 104.3, her pulse was rapidly elevated to 164, and her respiratory rate was increased to 28.

She was seen by a Physician whose name is not legible, and the patient had a complete blood count and urinalysis performed. They also took a sample of her blood to rule out the presence of germs in the bloodstream, which is called bacteremia or sepsis, and is a life threatening condition. Their first diagnosis was "fevers: rule out bacteremia" and the second diagnosis was "possible UTI (urinary tract infection)." In fact, he noted they sent a urine culture to the hospital laboratory and "in 1-2 days it will show us which bacteria caused the infection and if the prescribed antibiotic fights the bacteria."

The urinalysis obtained on April 25, evaluated in the Emergency Room, before the patient left, and noted by hand on the Emergency Room record, showed that there were only 0-2 red blood cells and 2-5 white blood cells seen under the microscope. There were no bacteria seen, and the dip stick of the urinalysis for the "leukocyte esterase" was "negative." This is strong evidence against a bacterial infection, in addition to the negative findings of the microscopic examination I just described.

Based upon all of that, in my opinion, this patient did not have a urinary tract infection (UTI). With a fever of 104.3, plus the rapid pulse and respiratory rates in a patient under these circumstances, in my opinion, she should have been seen by a Pediatrician or the Emergency Room Physician should have also performed a spinal tap. When patients have findings that are not consistent with the laboratory tests and physical examination for the presence of elevated temperature, a spinal tap in a 6-month old child is a routine.

In my opinion, the failure to perform the spinal tap at that time was a departure from the accepted standards of care. In my opinion, that most likely would have shown the presence of bacterial germs.

Prescribing the antibiotic, Bactrim, as well as injecting her with the antibiotic, ceftriaxone, would only serve to slow down the growth of germs and delay the onset of the full expression of the symptoms that she had.

The Emergency Room Physician obviously was concerned about a potential life threatening infection (bacteremia) wherein he ordered and had obtained a culture of the blood for germs. I do not understand why, under all these circumstances, he did not perform a spinal tap or have the patient seen by a Pediatrician, especially when the urinalysis was not consistent with his diagnosis.

On April 25, the blood count showed that the white count was significantly elevated to 24,000, and the differential smear, distinguishing the type of white cells based on their staining characteristics, showed 75 segmented forms, consistent with bacterial infection. The decrease in carbon dioxide (bicarbonate) in the blood shows a trend toward an acid buildup condition, consistent with serious infection.

The urinalysis obtained on April 25, for the bacteriology examination for germs, showed that the final culture results, available on April 27, showed "no growth." The two Physicians listed on that form are Dr. #2, whose name resembles the signature that was illegible on the Emergency Room record, and Dr. #1. In addition, the blood culture sample obtained on April 25, had a final result, on April 28, as Streptococcus pneumoniae, a specific type of germ. This record says, "results called on 4/26 at 0200 by lab to ER." Therefore, this blood specimen that was drawn on April 25, at 11:12 a.m., had a positive finding documented and called to the Emergency Room 15 hours later.

This is a life threatening emergency, and their failure to act upon this, in my opinion, is a departure from the standards of care. The Hospital #1 and their Emergency Room, and any personnel involved with this blood specimen, departed from the accepted standards of care. Again, both Physicians' names noted above are on this document. They have a duty to follow up and, in my opinion, they were negligent in the failure to follow up on this seriously abnormal bacteriology blood test, consistent with a life threatening condition.

In my opinion, the patient should have been contacted, through her grandparents, and immediately hospitalized with appropriate cultures of the spinal fluid and other parts of her body obtained, and the patient should have been started on intensive intravenous antibiotic therapy. In my opinion, therapy at that time for the positive blood culture would have prevented the patient developing the severe meningitis that resulted in her seizures, hospitalization, a seizure disorder, and hearing loss.

The patient was next seen by Dr. #3, an associate of Dr. #1. By that time, the emergency results should have been made available to those Doctors, and the record dictated by Dr. #3 says, "the child was seen in Hospital #1 where blood cultures and urine showed probable urinary tract infection. She was put on Bactrim (a sulfa-type antibiotic)." This, of course, was not true. If that Physician would have seen the Emergency Room record which should have been supplied, that Physician should have recognized that the urinalysis was not consistent with a urinary tract infection. Furthermore, by that time, the blood culture results were available and should have been made known to Dr. #3. His office staff should have obtained that information from the hospital, and this patient should have been immediately hospitalized as I described above.

At that time, the ears did not show infection and "the neck is supple." A supple, or soft mobile neck is evidence against acute meningitis, but in a 6-month old child, that may not always be positive at that time. His assessment was "viral gastroenteritis, rule out urinary tract infection."

As I mentioned, a urinary tract infection was already ruled out, and a differential smear of the white blood count, that was markedly elevated to over 24,000, was not consistent with a viral pattern, but was consistent with a bacterial infection with an elevation of the segmented forms. This Physician continued the antibiotic, Bactrim.

The patient was next seen on April 30, this time by Dr. #4 another associate. He said, "the child is listless." He noted the temperature for six days; noted the patient had received antibiotics and had various studies done, including blood work; and noted the child was not in acute distress and that the neck was "supple." The anterior fontanel, the soft spot on the skull, was soft. This is evidence against overwhelming meningitis with swelling that subsequently resulted. His conclusion was "rhinitis (inflamed nose)/fever of undetermined origin." A complete blood count (CBC) was ordered and the father was going to call that afternoon for the results.

This study showed the white blood count was more than 25,000, but the band forms, the immature white cells that pour out of the bone marrow in response to overwhelming bacterial infection, were 47%. This is grossly elevated, and the segmented neutrophils were also elevated. This degree of band forms is consistent with a life threatening bacterial infection, and Dr. #4 has his name on the form. Why did he not follow up that day on the results? The father was going to call that afternoon for the results, shouldn't the Physician have seen it first?

I want to point out that the culture and sensitivity on the blood that showed the presence of the Streptococcus pneumoniae germ was resistant to the Bactrim (triameth/sulfa). It was also resistant to the antibiotic, cefazolin, but this patient received a different injectable antibiotic of a similar class, ceftizoxime (Cefizox). The laboratory did not test for that antibiotic, and there was a probability that it was sensitive to that antibiotic. Thus, the injection the child got in the Emergency Room might have been an appropriate antibiotic for therapy, although it was only a one-shot injection. It could help suppress the growth of germs, but obviously did not cure the infection.

There was a clear opportunity, after 2:00 in the morning, when the positive blood culture was called to the Emergency Room, for someone to intercede, contact the grandparents or mother, and arrange for immediate reexamination and treatment of this patient with a potential life threatening illness. In my opinion, the failure to do so, not only was negligent, but prevented proper therapy that would have treated or prevented the bacterial meningitis and its consequences.

The patient was then seen on May 1, at the same by Dr. #4. The patient had been on the antibiotic Bactrim for five or six days, still was irritable, and was pulling at her ears. Her neck was supple on examination, and the left tympanic membrane (eardrum) appeared injected (red and inflamed). The Physician diagnosed left otitis media (left ear infection), stopped the antibiotic Septra (Bactrim), and changed the antibiotic to Cefzil. I do not understand why they did not have access to the laboratory tests that had their names on it, as well as the Emergency Room records, since they sent the patient to the Emergency Room for care.

The patient developed seizures and was taken to the Hospital #2. A spinal tap showed the presence of meningitis caused by the streptococcal germ, the patient was placed on appropriate intravenous antibiotics including the antibiotic Vancomycin, and was given appropriate medical attention.

According to the documentation, a CAT scan showed hydrocephalus. The spinal fluid is made within the hollow chambers of the brain called the ventricles, and it passes through a series of narrow passageways to exit from the central portion of the brain and reach the outer surface of the spinal cord, where it is absorbed. The infection caused a blockage of these narrow passageways and the fluid built up within the brain, squashing the brain against the skull, the condition which is called hydrocephalus. Because of that, a drainage tube had to be inserted by a needle operation, a ventriculostomy to drain the spinal fluid under pressure, and they also inserted a pressure gauge to measure the elevated intracranial pressure, and this would serve as a guide for therapy. This care was proper.

Apparently, a follow up MRI was negative. The electroencephalogram (brain wave study) was also negative (although the patient was receiving anti-seizure medication at the time). A BAER test was done, and apparently those results showed nerve damage as it relates to hearing. That, in my opinion, would be related to the meningitis.

The patient was in the Hospital from May 2 through May 16, and in my opinion, received proper medical attention during that Hospital stay.

In my opinion, there was negligence by the doctors named, as well as the Emergency Room at the Hospital and their treating Physicians. This patient obviously did not have a urinary tract infection based upon the negative leukocyte esterase test and the lack of bacteria or significant amount of pus cells in the urine. That culture was negative. The blood culture was positive for lifethreatening infection by germs, and this was apparently not communicated to anyone who followed up, which left the patient untreated and in a serious zone of danger. Those germs did enter the spinal fluid, causing meningitis. Possibly, they originated at that site, but in any event, it went untreated, or received inadequate antibiotic therapy, and thus partial suppression therapy, despite the laboratory results they had, including the markedly elevated white blood count with the gross elevation of the band forms that I described above. This is called a "shift to the left."

The Physicians will contend that the patient looked well, according to their office records, and her neck was supple. But this is a 6-month old baby, who was not receiving proper medical care. Even if they believed that the blood culture was a contaminated study, the white blood count with a marked elevation of the white cells and a gross shift to the left with 47% band forms (some of the highest I have ever seen on a smear), was a red flag that was not heeded. They were treating her for a urinary tract infection that did not exist, according to all the laboratory tests.

The differential smear on May 1, showed 81% segmented neutrophils, and only 6% band forms. The previous day, the differential was performed by the technologist. This one on May 1 may only have been the automated, computer-generated analysis. However, even on that study, there was "1+ toxic granulation," where as on April 30, there was 2+ toxic granulation and Dohle bodies. These are seen with overwhelming bacterial infection.

Is this child still having seizures? Is she still on anti-seizure medication? Have follow up hearing tests been performed since the last ones noted in the record? The developmental analysis shows there was "mildly delayed motor skills." She has "mild hypotonicity and muscle weakness, especially of the upper trunk and upper extremities." Perhaps she has had more brain damage than just hearing loss. Has this been followed up by any evaluations by a Pediatric Neurologist? The examination I am referring to occurred nine months ago. Have there been any recent MRI studies of the brain to be sure that there has been complete resolution of the hydrocephalus?

I would suggest that we obtain the services of Board Certified Experts in the fields of Emergency Medicine and Pediatrics, to discuss the negligence in this case. I would also suggest that we obtain Board Certified Experts in the field of Infectious Disease, to add their expertise as to how proper therapy at the correct time would have prevented the progression of the infection. In addition, you may also want us to supply an Expert in Pediatric Neurology to discuss all aspects of negligence, causation, and damages. All these Board Certified Experts are available through our independent consulting staff, pursuant to our current Fee Schedule.

Thank you for allowing our organization to assist you with this important case.