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Derailed by Tragedy

On May 12, 2015, an Amtrak train traveling from Washington, DC, to New York City derailed outside Philadelphia. There were over 200 people on the train; of those, eight died while the vast majority were injured. In such a mass casualty situation, multiple local medical centers are called upon to treat the injured. Dr. Erol Veznedaroglu, director of the Drexel of Neurosciences Institute and chair of the Department of Neurosurgery at the Drexel University College of Medicine, cared for a number of the victims at Hahnemann University Hospital.

Congress Quarterly How did you initially hear about the crash? Did you receive advance notice via phone or pager that a mass casualty had occurred?

Dr. Erol Veznedaroglu: I actually heard about it on the news that evening as I was getting home. When I saw the seriousness of it, I called my partner, who was covering one of two trauma hospitals we cover. We both went to our respective hospitals and called for backup at each one. By the time I was off the phone, we were notified by the trauma teams as well.

CNSQ In the early moments, what did you hear happened regarding the crash?

EV: It was unclear, but when I saw the helicopter views I knew we were looking at a mass causality situation, which is why I immediately called my team to give them notice we were going to be needed. The first patient I saw from the scene was on a long-board with a cervical collar on.

Aria Health received about 15 patients in total, including one of the most severe injuries, which involved a high cervical cord injury that required immediate surgery. Hahnemann University Hospital had two patients that required surgery and approximately seven required neurosurgical evaluation.

CNSQ How did you triage the neurosurgical/ spine patients?

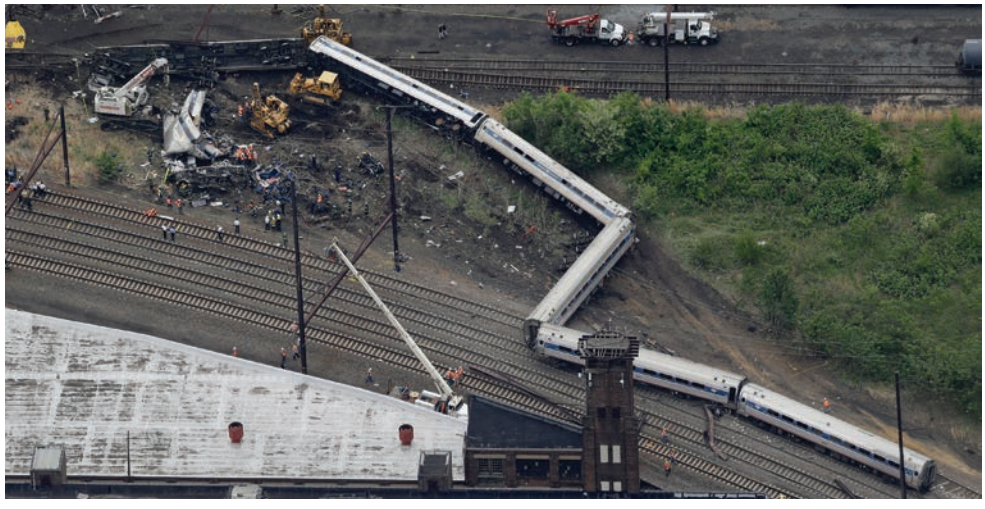
EV: It was a team effort with our colleagues. The efforts of EMS, Emergency Medicine, and Trauma was everything it should be and no doubt made a huge difference in outcomes. We covered all aspects of neurotrauma, from spine and cranial to blunt trauma.

CNSQ What were the most common injuries you saw in patients?

EV: By far it was spinal cord injury. There were almost no closed head injuries. The mechanism of the crash made spinal instability the highest concern, and that is exactly what we saw.

CNSQ Can you comment on how neurosurgeons should be prepared for patients and survivors' psychological trauma after a crash like this?

EV: It was my first experience with a situation of this scale; it left a significant impression on me. The most distraught patients weren't the ones with serious injuries. The ones that actually



Emergency personnel work at the scene of a deadly train derailment, Wednesday, May 13, 2015, in Philadelphia. The Amtrak train, headed to New York City, derailed and crashed in Philadelphia, killing at least six people and injuring dozens of others. (AP Photo/Patrick Semansky)

described everything that happened vividly were psychologically devastated. I think I saw for the first time PTSD on a mass scale. One patient in particular described being violently thrown from his seat, the loud crash, and literally being upside down and the feeling of extreme claustrophobia. It was clear the physical injury was the least of his issues.

CNSQ What aspect of that day do you remember most?

EV: Truthfully, the nervous energy of not knowing what to expect. I didn't really think it would be so spine-centric. The psychological trauma of the patients was really what I will remember most.

CNSQ What aftermath did the event and patient load have on Aria/Hahnemann?

EV: The teams were in place from the beginning, literally waiting for the patients to arrive. This allowed for a very concerted and efficient effort. Once everyone was triaged the patients were dealt with on an individual basis the following day. By that time all the procedures and surgeries were done.

CNSQ What mass casualty training or preparedness was in place prior to the event?

EV: The emergency room has training and preparedness simulation sessions that I think really became relevant. It made me realize that we as neurosurgeons should be more aware and involved, as we are usually only involved on the consultant end. When the seriousness of the situation became clear, we only had our own internal system (within neurosurgery) in place. Had we not had a backup call system in place, we would have had a real problem.

CNSQ How is neurosurgery integrated into mass casualty activation at Aria/Hahnemann?

EV: As I mentioned earlier, the team approach was key to a well-orchestrated approach, but I think we need to be more involved in triage practices that are specific to individual trauma hospitals before an event occurs. Fortunately, at both locations we have excellent communication with our regular traumas, so this really helped on a larger scale.

CNSQ How did this experience prepare you for mass casualty events in the future?

EV: It made me realize that, although rare, it does happen, and most of us aren't as prepared as we think. We have a new appreciation for communication and preparedness for these events.

CNSQ What advice can you give to fellow neurosurgeons involved with initial trauma management and potential mass casualties?

EV: Communication is critical. Meet with your ER and trauma colleagues to go over protocols; have them keep you abreast of their meetings and protocols. The real issue is internal communication within your practice. Have a clear "mass casualty" plan so everyone is on the same page. Those on backup call need to be ready to mobilize, and often others will need to be available. During this event there were three of us mobilized and taking care of patients and operating.

CNSQ What advice can you give to fellow neurosurgeons dealing with media in highly publicized situations?

EV: This is something we don't learn during residency or training. It is critical to always keep the patients' interest at the forefront. Reporters will try to make you feel very comfortable to get as much information as they can. It is very easy to make comments that are misrepresented or ill advised. Never discuss a patient's case or use anything that could identify the patient. Also, check your facts. If you don't know, don't guess. Lastly, always reach out to the hospital or university, as they are well-equipped to help deal with media. <

> COMMUNICATION IS CRITICAL. MEET WITH YOUR ER AND TRAUMA COLLEAGUES TO GO OVER PROTOCOLS... THE REAL ISSUE IS INTERNAL COMMUNICATION WITHIN YOUR PRACTICE. <