



# TREATING Returning Soldiers with a TRAUMATIC Brain Injury

by Cindy Kleiman, RDH, BS



Bob Woodruff

Since 2001 the wars in the Middle East have killed more than 5,300 U.S. soldiers, and 35,000 American soldiers have been injured.<sup>1</sup> According to one study at Walter Reed Army Medical Center, 62 percent of troops returning from Iraq have suffered head trauma, often due to IEDs (improvised explosive devices).<sup>2</sup> The phrase *traumatic brain injury* (TBI) has increased in use during these years and has led to a growth in medical knowledge in this area. Lives that could not be saved before are now saved; some threatened with lifelong disability are returning to the life they knew before. ABC's Bob Woodruff was a reporter who became one of these statistics.

Oral complications are intertwined with these injuries and are significant. They must be addressed by our profession. Many patients will be permanently in the Veterans Administration system, yet there will be those who want to return to their home-based private dental practice. The following is just a short sample of some of the issues we might be presented with.

TBI patients who are in critical care are often placed on a ventilator to assist with breathing. There is no area in medicine where oral hygiene plays a more important role. Poor oral hygiene has an evidence-based connection to *ventilator-associated pneumonia*.<sup>3</sup> This disease has a high morbidity and mortality rate. If the patient survives this first round of challenges, they will be moved to rehabilitation care.

Oral care is an important activity of daily living that is sometimes necessary to relearn. If the patient has a knowledgeable and experienced occupational therapist,

this challenge will often be met. If not, he or she might return home needing to start at the very beginning.

When providing care on a TBI patient, much homework should be done prior to their appointment. Establish their level of independence and cognitive function. Does he need to be treated in the wheel chair, or is he able-bodied and treatable in the dental chair? How long has it been since the injury? Take time prior to the appointment to completely review the medical history. Is there a shunt or metal plate in the head? Does he need premedication or a medical consultation? Prior to the appointment review all of the medications listed. Most will be on anticonvulsive medications due to the fact that TBI patients are usually left with a seizure disorder. What type of seizures does he have and how often does he experience them? Is he on a medication that produces gingival hyperplasia?

Oral hygiene treatment should be provided with the family member or attendant present if that is the comfort level of the patient. Remember, there is a huge range of levels of injury and return of function. You might be seeing someone that is the same person you knew before, or an entirely new personality could be waiting for you.

If there is a family member or assistant accompanying the patient, always speak directly to the patient. Have patience! The appointment could be tiring and frustrating for both of you, yet with a multitude of rewards. Your clinical goals might need to be compromised or achieved in increments. It might be appropriate to complete clinical care in two or three appointments.

There are so many wonderful oral hygiene products available to our patients. We no longer need to make



flossing our number-one mantra, as companies have created many interproximal cleaning options, such as water irrigators and disposable flossers. Powered toothbrushes like the Sonicare Flexcare can lead to increased ease of use for both the patient as well as for the attendant if needed. Utilizing the two-minute timer is a must to keep on track. Well considered choices of toothpaste, fluoride and remineralizing products can all lead to improved prevention for these patients. How wonderful that we can partner with them to minimize oral complications and to increase their overall health. They have been through enough already.

With the treatment of TBI patients, hygienists have the opportunity to augment their reputation for caring and compassion. It is important to take the time to study this medical condition prior to treatment. We hope that all patients who have suffered a TBI have the comeback potential and success experienced by ABC's reporter Bob Woodruff. Returning to lead a full and productive life is a reachable goal for many. ■

#### References

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#### Author's Bio

**Cindy Kleiman** graduated from the University of Pennsylvania and has worked with medically compromised patients for more than 25 years. She provides CE programs internationally and can be reached at [cindyspeaking@gmail.com](mailto:cindyspeaking@gmail.com).

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