F31 Dental Death — Unfortunate Fatal Results From Errors of Omission and/or Commission

Richard R. Souviron, DDS, 336 Alhambra Cir, Coral Gables, FL 33134*

After attending this presentation, attendees will learn the serious and fatal results from both medical and dental errors in judgment. They should learn the importance of making a proper diagnosis, as well as taking a complete history and treatment plan for what may seem a minor dental condition.

This presentation will impact the forensic science community by discussing the seriousness of dental infection, and how the lack of proper and timely treatment can lead to the death of a patient. Likewise, the omission of following the American Heart Association (AHA) and American Dental Association (ADA) standards for pre-medication may and can result in the death of a patient. By recognizing the serious consequences of not following proper preventive procedures, the practitioner should be cautious and mindful to avoid the errors of omission and/or commission that can result in fatal consequences.

This study covers over 35 years experience in reviewing over a dozen cases of death from dental treatment or lack thereof, all the cases having been ruled natural as to manner of death. The causes range from SBE (sub acute bacterial endocarditis) secondary to dental treatment, subdural empyema from dental infection or CVA (cerebral vascular accident) from discontinuation of anti-coagulant medications. Dental infection, whether from an abscessed tooth, periodontal disease, or defective root canal treatment can result in systemic infection and death of a patient. The improper protocol for IV sedation has had the unfortunate result of death of the patient. Does this breach of the standard of care rise to the level of manslaughter? The dental professional has a duty to his patient to know his/her medical history and always consult with the primary physician when there is a question or need to alter medications. The injection of local anesthesia containing epinephrine should be used with extreme caution when treating medically compromised patients such as ones with pulmonary edema.

Pre-medication requirements have changed over the years from one gram twice a day for one day before, day of, and day after an invasive procedure, to today's single dose of two grams one hour before procedure. For patients at risk, not following the proper protocol may have fatal results. Something as simple as a restoration at the crest of the gingival—a Class V—can cause bleeding and thus require the necessary pre-medication protocol. In cases of patients with prior rheumatic fever, damaged heart valves, or those with any type of valve replacements, any invasive dental procedure such as extractions, implants, cleanings, certain fillings in sub gingival cases, and crown preparations may seed the *Streptococcus Viridans* bacteria that is present in the oral cavity and produce SBE (subacute Bacterial Endocarditis). The dentist is responsible for taking precautions with this infection and must follow the AHA's and ADA's guidelines.

It seems only logical that a medical history be taken before treatment is instituted and reviewed for any potential problems of the proposed treatment. Why would a dentist perform an extraction in the presence of cellulitis, a history of dizzy spells, weight loss, constant severe unilateral headaches, and not take a temperature, review prior medical history, and make a timely referral? A simple extraction of a wisdom tooth on a 23-year-old male did not cause his death. But the undiagnosed systemic infection with subdural empyema present did. All dental practitioners need to be more aware of the seriousness of dental infections, reaction to anesthetics, importance of medical history, and strict adherence to pre-medications in order to avoid these tragic consequences.

Empyema, Manslaughter, Cellulitis

 ** Presenting Author*