

## Left untreated, tooth decay can take a life

by Diana\_Rossetti

The death of a 12-year-old Maryland boy made national news recently.

**X-RAY TELLS THE TALE** - Dental X-rays reveal the difference in appearance of a tooth that has undergone a root canal (left) and an untreated tooth. CNS Photo by Ray Stewart.

**KEY INSTRUMENTS** - Small endodontic files are the main tools used by an endodontist to remove diseased pulp during a root canal procedure. CNS Photo by Ray Stewart. He died of a toothache. And the media coverage surrounding the death reminded the complacent that untreated tooth decay can be fatal.

While the youngster's mother was seeking help for his younger brother whose six decayed teeth were causing him pain, Deamonte Driver's one abscessed tooth was driving him down a fatal path.

A dental abscess is a collection of infected material, pus, resulting from bacterial infection of the center, or pulp, of the tooth. It often is a complication of tooth decay.

A timely root canal treatment - removal of the pulp tissue of a tooth due to decay or injury - could have saved him and the tooth. An extraction also would have been an option. Instead, bacteria from the abscess spread to his brain and two surgeries and more than six weeks of hospitalization could not reverse the damage that had been done.

## UNAWARE AND OVERWHELMED

Such an outcome is not as rare as one might believe, commented endodontist Jenifer Schnettler of Jackson Township, Ohio. An endodontist deals with the tooth root, dental pulp and surrounding tissue.

"People's awareness of dental abscesses is not great. They can create sepsis, which is an infection in the blood, and it can travel into the brain," Schnettler explained. "It's terrible. The problem with children is that we often have a small window of time. The space in the faces is smaller and closer together. And the normal immune response of swelling and walling off infection is a little more advanced in adults. Geographically, you have a half an inch in the small face of a child.

"This family had a problem obtaining medical care, so we tend to see children within the mainstream of medical care attended to more quickly. However, an infection can get out of hand quickly. I have seen children very close, where perhaps we're looking at a 24-hour window. Mainstream America is well cared for but the infection can still become overwhelming."

Poor nutrition can be a contributing factor, she added, but "it's a simple matter of bacteria fighting anatomy. It's a war in there."

Dr. Andrew Wotjowski, interim director of Mercy Medical Center's new hospital-based clinic and dental residency program in Canton, Ohio, concurred. "Unfortunately, a lot of times, parents don't know what they don't know. You have a lump or a bump and they think it will go away," said Wotjowski, who also is program director for the general practice dental residency at St. Elizabeth Health Center in nearby Youngstown.

CONNECTION TO OTHER DISEASE

He also is concerned about periodontal disease. Research has shown connection between periodontal disease that affects the tissue that supports the teeth, and some cardiovascular diseases, upper respiratory illnesses and preterm and low-birth-weight babies. People with periodontal disease are known to have an increased risk of mouth bacteria penetrating the diseased gums and entering the circulatory system, then the bloodstream.

"There are a host of things. You very often can have a patient who has a compromised immune system. Why do people get heart attacks or colds? Some have an inherent resistance. If you don't have good nutrition, that is a factor. I have seen youngsters very quickly develop abscessed teeth and facial swelling and the brain's not very far from the teeth when they go bad," Wotjowski explained.

"If you have an organ transplant or a more involved procedure, you have to go to the dentist to get clearance because your body can react to the bacteria in your mouth. They have written papers about patients with periodontal disease who very often have coronary disease because the gunky stuff goes into the heart vessels. They think that diabetes may even be a reaction to this bacteria. In pregnancy, when you have another body to battle the fight, the body tries to react on the entire front." That painful dental crises arise often is proven, Wotjowski added, by the sheer numbers of dental patients who walked through the hospital's emergency room doors last year. There were 2,400 of them.

"Before, they palliated patients and told them to find a dentist. Now they are referred here to our residency program. By July 1, we should have four residents and a capacity for eight. You can imagine the impact that will have," he said. "We're in the forefront of dental medicine. It starts with patient education. Clean mouths mean healthy bodies.

Copley News Service

What is root canal therapy?

At one time, a tooth with a diseased or infected nerve had to be removed.

Today, in 95 percent of cases, the tooth can be saved through root canal treatment. The affected tooth and surrounding area is anesthetized. The tooth may be isolated with a rubber dam to protect the mouth from bacteria and chemical agents. An opening is made through the crown of the tooth into the pulp. The diseased pulp is removed and the root canal area inside the tooth is cleaned, enlarged and shaped. Ultimately, the

cleaned chamber is disinfected, then permanently filled and sealed.

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