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| **Name:** |
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| **Group:** |
| 9B-3 |
| **Basic Science Question:** |
| What is Ante’s Law? |
| **Report:** |
| Ante’s Law was created in 1926 by Irwin Ante and was developed to help determine the amount of support needed for a fixed dental prosthesis (FTP). Ante’s Law states that, “The combined root surface area of the abutment teeth should equal or be greater than that of the teeth being replaced by pontics.” (Ante, 1926). A pontic is an artificial tooth on a fixed dental prosthesis that replaces the missing tooth. Abutment teeth are the teeth lateral and medial to the missing tooth/teeth, and they support the prosthesis. Abutment teeth are essential to the success of FTP and therefore the health of the abutment teeth is extremely important. If too much stress is put on the abutment teeth, it could lead to bone loss or even tooth loss. To prevent bone loss on abutment teeth, Ante developed his law to reduce stress on abutment teeth and increase success rates of FTPs. His law uses root surface area as a means of determining how much stress the abutment teeth can handle. However, it may be difficult to estimate the root surface area of missing teeth if they are not present. To solve this issue, in 1963, Jepsen measured average root surface areas. These root surface area averages can be used to compare the root surface areas of missing teeth to abutment teeth. During the presentation, I will explain what abutment teeth, pontics, and Ante’s Law are. Then I will present two different examples using Jepsen’s table to show one situation where Ante’s law is broken, and one where it is obeyed. I will conclude by reiterating the importance of abutment teeth and the consequences of putting too much stress on them.  |
| **References:** |
| Ante IH, “The Fundamental Principles of Abutments,” *Mich State Dent Soc Bull*, 1926.Jepsen A, “Root Surface Measurement and a Method for X-ray Determination of Root Surface Area,” *Acta Odontol Scand*, 1963.Lexicomp for Dentistry. (13, March 28). Average Root Surface Area and Fixed Prosthetic Replacements. Retrieved October 18, 2020, from http://0-online.lexi.com.libus.csd.mu.edu/lco/action/doc/retrieve/docid/ihcd/908997?cesid=alto6QAHG0s |