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| **Name:** |
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| 4B-3 |
| **Pathology Question:** |
| What are the potential causes for formation if tori/bony exostoses? |
| **Report:** |
| The three main types of oral bony outgrowths include torus mandibularis which is typically found sublingually near the canine and premolar teeth, torus palatinus which commonly forms at the midline on the back of the hard palate, and buccal exostosis which is formed on the buccal gingiva in the molar and premolar region. The exact etiology of these tori is unclear; however, there are some possible causes to their formation. These general possible causes include masticatory hyperfunction, continued bone growth, genetic factors, and environmental factors such as diet. In a more specific sense, the torqueing action of the arch of the mandible may be the cause of a mandibular torus, mild, chronic peri-osteal ischemia secondary to mild nasal septum pressures may cause palatal tori, and lateral pressures from the roots of the underlying teeth may be the cause of a buccal exostosis. All of these potential causes are still just speculation, however. Additionally, studies focusing on torus mandibularis and torus palatinus have found that the genetic factor may have a slightly greater influence on the presence of oral bony outgrowths than previously thought. One study found that torus mandibularis is more commonly found in Japanese, Spanish, and Ghanian populations while torus palatinus is more commonly found in German, Norwegian, Croatian, Thai, and Malaysian populations. Although these populations tend to show a greater prevalence of tori/exostoses, the genetic factor is not considered the sole etiologic factor since local stresses can lead to size fluctuation of the tori throughout life.  These bony outgrowths are more common early in adult life. They tend to grow slowly and are usually nodular but the majority remain less than 2mm in size. They can be either unilateral or bilateral and are usually asymptomatic. Many patients are concerned about oral cancer when tori are discovered but by definition they are benign. Neither the torus nor the exostoses normally need to be removed; however, when they do, the most common reason is due to interference with a dental prosthesis such as during denture placement. Some other reasons include that the bony outgrowth suffers from recurring traumatic surface ulceration usually from sharp foods or because the torus or exostoses is contributing to a periodontal condition. The surgery will reduce the amount of bone; however, the tori or exostoses may reform due to continued local stresses that may have caused the bony outgrowth in the first place. This is uncertain because the exact etiology of tori/exostosis is uncertain. |
| **References:** |
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