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| **Name:** |
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| 8B-4 |
| **Pathology Question:** |
| What are potential complications in implant placement? |
| **Report:** |
| For optimal implant success, many anatomic-based patient factors and precise procedural details must be considered. Factors such as bone density at the implant site, location of nearby nerves, location of nerby sinuses, and the positioning of adjacent roots all will affect treatment planning and determine the necessary precautions that must be followed to prevent implant failure or complications. One example of a potential complication during placement includes perforation of the implant through the buccal/facial or lingual cortical plate due to incorrect angulation. Perforation of the buccal or lingual plate can result in infection, decreased osseointegration, and potential implant failure. The avoidance of nearby anatomical features is also necessary during implant placement. Correct depth/extension and angulation during placement is crucial to avoid structures such as the maxillary sinus, mandibular canal, or damaging roots of the teeth adjacent to the implant site. Perforation of the implant into the maxillary sinus can potentially result in many post-operative complications, including a foreign body reaction causing sinusitis, while nerve damage can cause sensory defecits. In addition, damage of an adjacent tooth can cause non-vitality and demand additional treatment. Overall, with proper planning, adequate skills, and the use of an accurate surgical guide, many of the potential complications associated with implant placement can be avoided, improving the treatment prognosis and likelihood of a successful restoration.  |
| **References:** |
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