What is the most severe early complication concerning dental implants?

The placement of dental implants, although not without early complications—which are usually self-limited—has become a scheduled, routine and standardized surgical procedure. However, it is important that education in oral implantology adequately cover the immediate bleeding complications, especially in the floor of the mouth, that may arise and that, although infrequent, may be severe, sometimes even life-threatening, and require hospitalization for emergency treatment.

The interforaminal area in the mandible is quite often considered as the easiest region in which to insert dental implants, such as placing two implants to support an overdenture. However, the most serious bleeding accidents occur in this region owing to injury of the terminal branches of the sublingual or submental arteries if the lingual cortical plate is perforated during drilling or implant placement. This vascular injury can trigger massive internal bleeding in the mouth floor, which expands, causing protrusion and displacement of the tongue and sometimes subsequent obstruction of the airways, which may necessitate an emergency tracheotomy or even be fatal. Thus, the clinician should not treat placement of anterior mandibular implants lightly in the belief that placement in this region is easy.

In order to minimize the possibility of perforating the lingual cortical plate, some authors recommend placing implants that are not very long (10–12 mm) in the anterior region of the mandible. Tilting implants in a buccolinguinal direction, tipping the implant apex toward the vestibule, is another option. Perhaps the most important factor concerning minimization of the risk of these complications is that the surgeon carrying out the implant therapy should have extensive anatomical knowledge of this area, including the important anatomical structures located in the sublingual space.

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