



Emerging considerations when providing bariatric dentistry

Obesity is a condition characterized by abnormal or excessive fat accumulation in the adipose tissue and is a growing serious health-related problem. Common causes are genetics, physiologic influences, food intake and eating disorders, sedentary lifestyle, weight history, pregnancy, drugs like steroids, and drugs used for treatment of psychiatric conditions. More than one third (35.7%) of adults are considered to be obese and 6.3% have morbid obesity in the United States. According to the World Health Organization, obesity is the fifth leading cause of mortality worldwide by causing serious effects on a person's physical, metabolic, and psychologic health – diabetes mellitus type 2, hypertension, hyperlipidemia, coronary heart disease, cerebrovascular disease, increased incidence of certain forms of cancer, respiratory complications (obstructive sleep apnea), and osteoarthritis of small and large joints. Obesity may be associated with several aspects of oral health, such as caries, periodontitis, and xerostomia.

The field of bariatric dentistry has grown increasingly complex as the availability and safety of dental care delivery can be affected by obesity due to the weight limits of the dental chairs and the impact of the systemic health. When patients' weight exceeds that of a regular dental chair capacity, which is regularly 400 lbs, referral to specialist settings is necessary. A bariatric dental chair with capacity of 815 lbs might easily be considered an excessive burden on a small dental practice but is an appropriate purchase for a specialty care clinic. Using a multi-specialty approach in providing quality dental care for these patients requires coordination among team members and team problem solving. The interdisciplinary team approach often involves caregivers, nurses, internal medicine physicians, medical specialists, psychiatrists, social workers, special care dentists, and dental specialists. Furthermore, this necessitates understanding and knowledge of each member's role and responsibilities. Having their participation and proper communication are essential for risk stratification, medical optimization and clearance, the dental treatment process, and rehabilitation strategies.

It is very important to emphasize that we treat patients, not medical cases or conditions, and that involves a case by case in-

dividual approach. Therefore, directing to the appropriate clinic, most often in a hospital setting, and developing a standardized protocol to enable the clinical dental management of bariatric patients often involves thorough communication between front desk receptionists, patients, caregivers, and the referring and receiving providers, as well as transportation services prior to the visit. Parking should be available as close to the venue as possible. Bariatric suitable ambulance transport may be required for the patients and other specific requirements like oxygen cylinder carriage.

Hospitals are already changing to be able to see morbidly obese patients routinely by altering their patient rooms, with larger and sturdier beds and wheelchairs, buying new equipment and supplies (longer needles, larger blood pressure cuffs, proper diagnostic equipment that can accommodate excessive weight such as scales, special imaging equipment), a computed tomography scanner, and bigger operating tables, building new wings, making doorways in patient rooms and bathrooms wider to accommodate wider beds, walkers, and wheelchairs, installing special heavy-duty elevators, etc.

Since obesity has become such a serious and rapidly growing global health problem it is important to highlight any possible barriers to optimal dental care provision for these patients. Obscured anatomical landmarks from the enlarged soft tissue are causing difficult access and visibility. Local anesthesia via intraoral blocks could be impossible to administer, and alternative techniques have to be utilized. The comorbidities associated with obesity, potential difficulties in airway management, challenging intravenous (IV) cannulation, high risk of respiratory depression, and difficulties in managing a respiratory complication make IV sedation unsuitable for bariatric patients. For general anesthesia, thoughtful planning and admitting the patient in the hospital would be required. The most appropriate form of sedation for these patients is inhalation sedation as there are no specific contraindications, but again with special considerations for airway patency. Practitioners should be careful with patients' posture and they may have to be treated semi-supine or sitting upright due to airway management issues when in supine position. Taking intraoral peri-



apical radiographs can be more challenging because of the excessive soft tissue. Panoramic radiography can be difficult or even impossible if the machine is unable to accommodate the patient's size. Delayed wound healing is more likely to occur in bariatric patients due to reduced immune function. Coagulation abnormalities may also occur – due to non-alcoholic fatty liver disease.

There is a trend in current research in dental medicine toward identifying the link between oral health and various systemic diseases. Given that dental caries rates and body mass index (BMI) both measure diet-related health outcomes; the association between the two is not surprising. However, not all studies have found a positive association between BMI and dental caries, as some studies suggest that there is no relationship and others show an inverse relationship. Some studies have shown an association between BMI and caries in childhood/adolescence, but limited data about such an association are available in adults.

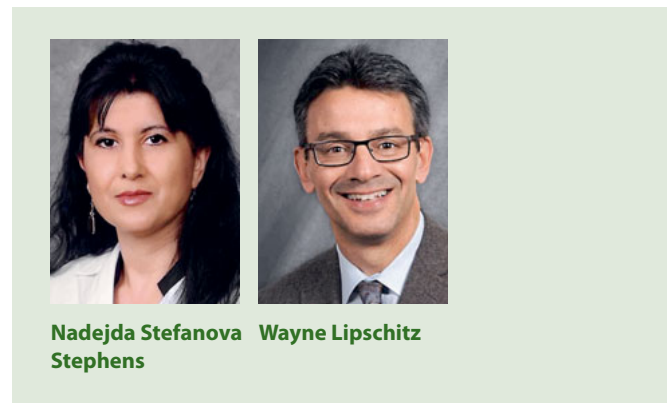
Bariatric dentistry is an important component of the scope of treatment in specialty care clinics. Further research studies are necessary to establish treatment protocols and guidelines. Dental students and residents should be trained to achieve good confidence and competency levels to treat bariatric patients. With great networking, social media, and public relations awareness in the community, bariatric patients can without obstacle find their dental home. ■

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Further reading

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