presented. In this presentation, the author will display many of these clinical experiences.

Results: It has even been possible to regenerate partial bone replacement in radiated bone following partial thickness resection. It has been especially useful in repair of head and neck cancer resection defects.

Conclusions: The use of MatriStem has offered unprecedented solutions to many challenging and complex cases.

Transoral Surgical Anatomy and Clinical Considerations of Lateral Oropharyngeal Wall and Base of Tongue

Ramazan Gun, MD (presenter); Kasim Durmus, MD; Cuneyt Kucur, MD; Ricardo L. Carrau, MD; Enver Ozer, MD

Objectives: (1) Describe key anatomic structures in lateral oropharyngeal wall and tongue base transorally. (2) Determine surgical landmarks to increase intraoperative safety in transoral robotic surgery.

Methods: Transoral dissections were performed endoscopically in 5 vascular silicone-injected fresh human cadavers. Anatomic structures were also confirmed with lateral neck dissections.

Results: Tonsillar bed is largely made by superior pharyngeal constrictor muscle and overlying pharyngobasilar fascia. Palatoglossus and palatopharyngeus muscles limit this tonsillar bed anteriorly and posteriorly, forming tonsillar pillars. Stylopharyngeus and styloglossus muscles and stylohyoid ligament run between superior and middle pharyngeal constrictor muscles contributing to inferior tonsillar fossa. These structures are located just medial to facial, lingual, and internal maxillary arteries in parapharyngeal space. Internal carotid artery lies posterolateral to the branches of external carotid artery. Lingual artery injury might occur during base of tongue or inferior tonsil resections. At its origin, the lingual artery is situated deep to middle pharyngeal constructor muscle between stylohyoid ligament and greater cornu of hyoid bone posteriorly. At the tonsil-tongue base junction, it courses lateral and deep to styloglossus muscle. Keeping the resection over styloglossus muscle and stylohyoid ligament will prevent lingual artery injury. The glossopharyngeal nerve is positioned between stylohyoid ligament and styloglosus muscle. Its branches travel posteroinferiorly in inferior tonsillar fossa toward the base of tongue. Lingual nerve is vulnerable to injury as it emerges anterior to medial pterygoid muscle.

Conclusions: A thorough understanding of transoral anatomy is critical for surgeons to perform transoral robotic surgery safely and efficiently.

Tumor-Induced Osteomalacia of the Head and Neck Region: A 10-Year Tertiary-Care Experience

Suma S. Mathews, MS (presenter); Vedantam Rupa, MS; Anand Job, MS; John Mathew, MS; Marie T. Manipadam, MD; Nihal J. Thomas, MD; Thomas V. Paul, MD

Objectives: Oncogenic osteomalacia (OO) is a paraneoplastic syndrome seen in tumors of mesenchymal origin that secrete "phosphatonins," like fibroblast growth factor-23 (FGF-23). They are characterized by hypophosphatemia and osteomalacia. These patients make remarkable recovery once tumors are localized and excised. The authors' aim was to study retrospectively the clinical, biochemical profile and follow-up of subjects who presented with the features of OO of the head and neck region.

Methods: Data of all the patients diagnosed to have OO from 2004-2013 were collected using the computerized database.

Results: Among the total 29 presentations of 27 with OO, 12 (44%) were found to have a histopathologically proven identifiable lesion. Nine (75%) of these were found to be in the head and neck region. The most common presenting symptoms in this subgroup were bone pains (78%) and proximal muscle weakness (56%). Rigid nasal endoscopy, blood pool scan, contrast-enhanced computed tomography, and magnetic resonance imaging of head and neck region picked up 5 out of 6 (83%), 3 out of 7 (43%), 9 out of 9 (100%), and 3 out of 3 (100%) lesions, respectively. All patients underwent surgical excision, of which 56% are in partial and 44% in complete remission. Two patients had a recurrence at the same site after 5 years.

Conclusions: The head and neck region was the most common site where tumor was localized in patients with OO. In all hypophosphatemic osteomalacia, where oncogenic osteomalacia is suspected, nasal endoscopy and imaging of the head and neck region should be done. Surgical excision remains the mainstay of treatment. These patients warrant long-term follow-up as a recurrence can occur several years after the initial response.

The Use of Botulinum A Toxin in Dysphagia

Nikul Amin, MRCS (presenter); Bertram Fu, FRCS; Neil De Zoysa, MRCS; Simione Lew-Gor

Objectives: (1) Describe our experience with the use of botulinum A toxin (Botox) in a case series of patients with dysphagia with cricopharyngeal spasm on videofluoroscopy. (2) Systematic review of current literature.

Methods: We present a case series of patients with dysphagia refractory to conventional conservative and medical treatment in whom we administered endoscopic injection of 100 mU of Botox into the cricopharyngeus by a single head and neck surgeon using the same technique. Eight patients with refractory dysphagia were treated with 100 mU of Botox injection into the cricopharyngeus. We excluded patients who previously had a surgical intervention to the upper esophagus or pharynx. The change in dysphagia after Botox administration was assessed using the Mayo Dysphagia Questionnaire-30 before and approximately 2 weeks, 3 months, and 6 months after Botox administration and with pre- and post-administration videofluoroscopies.

Results: The Mayo Dysphagia Questionnaire-30 scores improved significantly at all follow-up stages postprocedure. This improvement is reflected in the post-injection videofluoroscopy examinations.