

Bölüm 16

AĞIZ KANSERLERİNDE TEDAVİ VE REKONSTRÜKSİYON

Burak BAYRAM
Görkem MÜFTÜOĞLU

AĞIZ KANSERLERİ EPİDEMİYOLOJİSİ VE ETİYOLOJİSİ

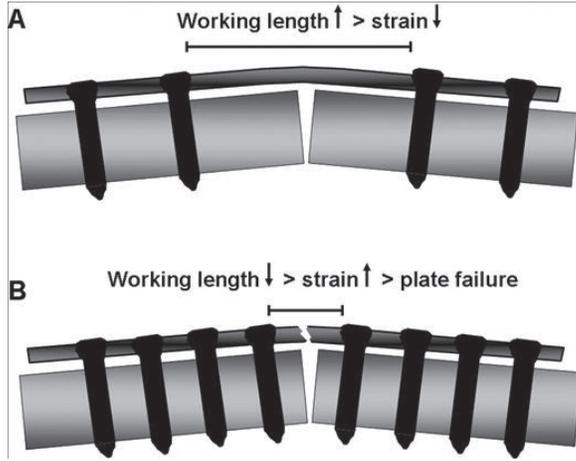
Oral kanserler dünyada en yaygın altıncı kanser türüdür¹. Tüm kanserlerin %4'ünü oluşturan bu kanser türü aynı zamanda kanser kaynaklı ölümlerin %2'sini oluşturur².

Ağız ve çevre dokusunda ortaya çıkan kanserlerin gelişimini etkileyen çeşitli faktörler bulunmaktadır. Hastanın yaşı, cinsiyeti, ırkı, yaşam şekli, alışkanlıkları, genetik faktörler ve coğrafi varyasyonlar oral kanser görülme insidansını etkilemektedir.³

Tüm oral kanserlerin yarısının 65 yaş üstü bireylerde ortaya çıkması yaşın büyük bir etkisi olduğunu göstermektedir. Bazı epidemiyolojik çalışmalar kanserlerin 40 yaş altı genç bireylerde ortaya çıkma olasılığının oldukça düşük olmasını muhtemel genetik ve çevresel etkenlere bağlamaktadır.⁴

Oral kanserler erkeklerde daha çok ortaya çıkmaktadır. 1950'lerde erkeklerdeki oral kanser sıklığının kadınlardaki oral kanser sıklığına oranı 6/1 iken, bugünlerde bu oran 2/1'den daha azdır. Bu orandaki azalmanın en büyük nedeni olarak kadınlarda alkol ve sigara kullanımının oldukça artması gösterilmektedir. Ayrıca 65 yaş üstü genel popülasyonda kadın nüfusu erkek nüfusundan yaklaşık %20 fazladır.

Etnik farklılıkların etkisi oral kanserlerde de bilinmektedir. Örneğin siyahlarda kanser oranı beyazlara göre fazladır. Oral kanserler siyahlarda en sık görülen 3. kanser iken Latin kökenli olmayan beyazlarda en sık görülen 7. kanserdir. Coğrafik farklılığa bakıldığında ise özellikle Güney Asya'da oral kanser prevalansının çok yüksek olduğu görülmektedir. Örneğin, Hindistan'da oral kanser en sık görülen kanser tipidir ve erkeklerdeki yeni teşhis edilen kanserlerin %35'ini oluşturur. Batı ülkelerinde dil ve ağız tabanı kanserleri daha çok görülürken, Hindistan'da dişeti ve yanak mukozası kanserlerine daha fazla rastlanır.



Şekil 2.14. Kilitli sistemde plak üzeri yük dağılımı

Konvansiyonel kilitsiz sistemlerde ise kırıklar daha çok vida ve plağın birleşim yeri olan vida başında oluşmaktadır. Ancak kilitli sistemlerde vida başları sistemin en sağlam yerini oluşturmaktadır. Rotasyonel kuvvetlere bağlı oluşan kronik stabilizasyon bozukluğu olan ve artmış gerinime maruz kalan vakalarda kilitli vida başlarında da kırılmaların görülebileceği bildirilmiştir.⁷⁹

Plak yerleştirilmesinde dikkat edilmesi gereken bazı hususlar bulunmaktadır. Metal plak ile mukoza ve deri etkileşiminin engellenmesi için bu yapılardan uzağa yerleştirilmesi gerekmektedir. Özellikle plağın açığa çıkmasının engellenmesi için plağın kas ve yumuşak dokularla çevrelenmesi tavsiye edilmektedir. Yumuşak dokulara zarar gelmemesi ve periost hasarı ile beslenmenin bozulmaması için yerleştirilecek vidaların medial korteksten çıkmamasına özellikle dikkat edilmelidir. Plak; fasiyal yüksekliği sağlamak, diş köklerine zarar vermemek ve ağız mukozası ile teması engellemek için mandibulanın alt kenarına ve en yoğun kortikal kemik üzerine yerleştirilmelidir.⁴⁹

KAYNAKLAR

1. JOHNSON, N. (2001).Tobacco Use and Oral Cancer: A Global Perspective. *J Dent Educ.*65: 328-39.
2. CAMPANA, JP., MEYERS, AD. (2006). The Surgical Management of Oral Cancer. *Otolaryngol Clin N Am.*39: 331-348
3. MOORE, SR., JOHNSON, NW., PIERCE, AM., WILSON, DF. (2000). The epidemiology of mouth cancer: A review of global incidence. *Oral Dis.*6: 65-74.
4. LEWELLYN, CD., JOHNSON, NW., WARNAKULASURI, KA. (2004) Risk factors for oral cancer in newly diagnosed patients aged 45 years and younger: a case-control study in Southern England. *J Oral Pathol Med.* 33: 525-32.

5. VAN DEN BREKEL, MW., CASTELINJNS, JA., STEL, HV., GOLDING, RP., MEYER, CJ, SNOW GB. (1993). Modern Imaging Techniques and Ultrasound-Guided Aspiration Cytology for the Assessment of Neck Node Metastases: A Prospective Comparative Study. *Eur Arch Otorhinolaryngol.***250**: 11–7.
6. KREIMER, AR., CLIFFORD, GM., BOYLE P., FRANCESCHI, S. (2005). Human papillomavirus types in head and neck squamous cell carcinomas worldwide: a systematic review. *Cancer Epidemiol Biomarkers Prev.***14**: 467-75.
7. Misra, S., CHATUVEDI, A., MISRA, NC. (2008). Management of gingivobuccal complex cancer. *Ann R Coll Surg Engl.* **90**: 546-53.
8. ACHAUER, BM., ERIKSSON, E., GUYURON,., COLEMAN, JJ., RUSSELL, RC. (2000). Plastic Surgery: Head and neck surgery; Plastic Surgery: Indications, Operations, and Outcomes. VOLUME 3 P;1067-287
9. SHAH, JP. (1990) Patterns of cervical lymph node metastasis from squamous carcinomas of the upper aerodigestive tract. *Am J Surg.***160**: 405-9.
10. TEI, K., TOTSUKA, Y., IIZUKA, T., OHMORI, K. (2004) Marginal Resection for Carcinoma of the Mandibular Alveolus and Gingiva: Where radiologically Detected Bone Defects Do Not Extend Beyond The Mandibular Canal. *J Oral Maxillofac Surg.***62**: 834-839.
11. WERNING, JW., (2001) Preoperative Assessment for and Outcomes of Mandibular Conservation Surgery. *Head Neck* **23**: 1024–30
12. SHAHA, AR. (1991) Preoperative Evaluation of the Mandible in patients with Carcinoma of the Floor of the Mouth. *Head neck***13**: 398–402.
13. TEI, K., TOTSUKA, Y., IIZUKA, T., OHMORI, K. (2004). Marginal Resection For Carcinoma of the Mandibular Alveolus and Gingiva Where Radiologically Detected Bone Defects Do Not Extend Beyond the Mandibular Canal. *J Oral Maxillofac Surg.***62**: 834–9.
14. POLITI, M., COSTA, F., ROBIONY, M., RINALDO, A., FERLITO, A. (2000). Review of Segmental and Marginal Resection of the Mandible in Patients with Oral Cancer. *Acta Otolaryngol.***120**: 569–79.
15. SHAH, JP., PATEL, SG. (2003). Head and Neck Surgery and Oncology. 3rd Edition. London, New York: Mosby, Edinburgh;
16. GULER, N., UCKAN, S., CELIK, I., OZNURLU, Y., UCKAN, D. (2005) Expression of Fas and Fas-Ligand and Analysis of Argyrophilic Nucleolar Organizer Regions In Squamous Cell Carcinoma: Relationships With Tumor Stage and Grade, and Apoptosis. *Int. J. Oral Maxillofac. Surg.*, **8**: 900-906
17. SHAH, JP., GIL, Z. (2009). Current Concepts in Management of Oral Cancer. *Oral Oncology.* **45**: 394–401
18. SPIRO, RH., HUVOS, AG., WONG, GY., SPIRO JD., GNECCO, CA., STRONG, EW. (1986). Predictive Value of Tumor Thickness in Squamous Carcinoma Confined to the Tongue and Floor of the Mouth. *Am J Surg.***152**: 345–50.
19. SPIRO, RH., HUVOS, AG., WONG, GY., SPIRO JD., GNECCO, CA., STRONG, EW. (1986). Predictive Value of Tumor Thickness in Squamous Carcinoma Confined to the Tongue and Floor of the Mouth. *Am J Surg.***152**: 345–50.
20. PICCIRILLO, JF. (1995). Inclusion of Comorbidity In a Staging System for Head and Neck Cancer. *Oncology (Williston Park)* **9**: 831–48.
21. WAX, MK., BASCOM, DA., MYERS, L. (2002). Marginal Mandibulectomy vs Segmental Mandibulectomy: Indications and Controversies. *Arch Otolaryngol.***128**: 600-603.

22. MARCHETTA, FC., SAKO, K., MURPHY, Jb. (1971). The Periosteum of the Mandible and Intraoral Carcinoma. *Am J Surg*. **122**: 711-713.
23. CARTER, RI., TSAO, S., BURMAN, JF. (1983). Patterns and Mechanisms of Bone Invasion by Squamous Carcinomas of the Head and Neck. *Am J Surg*. **146**: 451-455.
24. MCGREGOR, AD., MacDONALD, DG. (1988). Routes of Entry of Squamous Cell Carcinoma to the Mandible. *Head Neck Surg*. **10**: 294–301.
25. SHAH, JP., JOHNSON, NW., BATSAKIS, JG. (2003). Oral Cancer. LONDON. Martin Dunitz P: 209-365.
26. MISRA, S., CHATURVERDI, A., MISRA, NC. (2002). Oral Carcinoma. Recent Advances In Surgery, Volume 25. London: Royal Society Of Medicine Press. P: 71–86.
27. OBRIEN, CJ., LEE, KK., CASTLE, G., STEVENS, G. (1992). A Comprehensive Treatment Strategy for Squamous Carcinoma of the Oral Cavity and Oropharynx. *Am J Surg*. **164**: 582–586.
28. DUBNER, S., HELLER, KS. (1993). Local Control of Squamous Cell Carcinoma Following Marginal and Segmental Mandibulectomy. *Head Neck Surg*. **15**: 29-32.
29. WAX, MK. (2005). Preservation of the Mandible in the Management of Cancer of the Oral Cavity. *Operative Techniques in Otolaryngology*. **16**: 18-23.
30. REUTHER, JF., KUBLER, NR. (1999). Die Wiederherstellung des Unterkiefers. Therapeutische Verfahren nach Kontinuitätsverlust durch Entzündung, Trauma, Tumor. *Dtsch A rzteblatt* **96**: 739–746.
31. CARLSON, ER., BASILE, JD. (2009). The role of surgical resection in the management of bisphosphonate-related osteonecrosis of the jaws. *J Oral Maxillofac Surg*. **67**: 85-95.
32. GENDEN, EM., RINALDO, A., JACOBSON, A., SHAHA, AR., SUAREZ, C., LOWRY, J., URQUHART, AC., WERNER, JA., GULLANE, PJ., FERLITO, A. (2005). Management of mandibular invasion: when is a marginal mandibulectomy appropriate? *Oral Oncol*. **41**: 776-82.
33. HELLER, KS., DUBNER, SD., KELLER, A. (1995). Long-term evaluation of patients undergoing immediate mandibular reconstruction. *Am J Surg*. **170**: 517–520
34. COUSTAL, B., MICHELET, V., PINSOLLE, J., SIBERCHICOT, F., CAIX, P., MICHELET, FX. (1994). Resultats de l'utilisation des plaques de reconstruction mandibulaire en titane (Results of primary mandibular reconstruction using titanium plates). *Rev Stomatol Chir Maxillofac*. **95**: 274–277.
35. SCHIPSTER, T., GULLANE, PJ., NEGILAN, PC. (2000). The free vascularized flap and the flap plate options: comparative results of reconstruction Of lateral mandibular defects. *Laryngoscope*. **110**: 2056– 2060.
36. THOMAS, J., OW, TJ., MYERS, JN. (2011). Current Management of Advanced Resectable Oral Cavity Squamous Cell Carcinoma. *Clinical and Experimental Otorhinolaryngology*. **1**: 1-10
37. HUGUENIN, P., BEER, KT., ALLAL, A., RUFIBACH, K., FRIEDLY, C., DAVIS, JB., SCHMID, S., THONI, A. (2005). Concomitant cisplatin significantly improves locoregional control in advanced head and neck cancers treated with hyperfractionated radiotherapy. *J Clin Oncol*. **22**: 4665-73.
38. COOPER, JS., PAJAK, TF., FORASTIERE, AA., JACOBS, J., CAMPBELL, BH., SAXMAN, SB., KISH, JA., KIM, HE. (2004). Radiation Therapy Oncology Group 9501/Intergroup. Postoperative concurrent radiotherapy and chemotherapy for high-risk squamous-cell carcinoma of the head and neck. *N Engl J Med*. 2004 May **350**: 1937-44.

39. JEWER, DD., BOYD, JB., MANKTELOW, RT., ZUKER, RM., ROSEN, IB., GULLANE, PJ., ROTSTEIN, LE., FREEMAN, JE. (1989). Orofacial and mandibular reconstruction with the iliac crest free flap: a review of 60 cases and a new method of classification. *Plast Reconstr Surg.* **84**: 391-405
40. BOYD, JB., GULLANE, PJ., ROTSTEIN, LE., BROWN, DH., IRISH, JC. (1993). Classification of mandibular defects. *Plast Reconstr Surg.* **92** : 1266-75.
41. URKEN, ML., WEINBERG, H., VICKERY, C., BUCHBINDER, D., LAWSON, W., BILLER, HF. (1991). Oromandibular reconstruction using microvascular composite free flaps. Report of 71 cases and a new classification scheme for bony, soft-tissue, and neurologic defects. *Arch Otolaryngol Head Neck Surg.* **117**: 733-44.
42. SCHLIEPHAKE, H., JAMIL, MU. (2002). Prospective evaluation of quality of life after oncologic surgery for oral cancer. *Int J Oral Maxillofac Surg.* **31**: 427-33.
43. MARTIN, C. (1889). Lymphadenopathy prosthese immediate, appliquee a lymphadenopathy resection des maxillaires: rhino-plastie sur appareil prothetique permanent; restauration de lymphadenopathy face, levres, nez, langue, *voute et viole du palais.* Paris, Masson et Cie.
44. Partsch. (1897). Prosthesis of lower jaw after resection. *Arch Klin Chir.* **55**: 746.
45. LINDEMANN, A. (1916). Bruhns ergebnisse aus dem düsseldorf lazzaret, behandlungen der kieferschussverletzungen. *Wiesbaden* p 243.
46. KLAPP, R., SCHROEDER, H. (1917). Die Unterkieferschussbrüche. Berlin. Hermann Meusser.
47. IVY, RH. (1921). Extensive loss of substance of mandible due to removal of sarcoma, replaced by bone graft from crest of ilium. *Int J Orthod.* **7**: 483.
48. CONVERSE, JM. (1945). Early and late treatment of gunshot wounds of the jawin French battle casualties in North Africa and Italy. *J Oral Surg.* **3**: 112.
49. THORNE, CH. (1997). Grabb and Smith's Plastic Surgery. Fifth edition. Philadelphia, Lippincott-Raven Publishers. Chapter **82**: 957-80.
50. SWANSON, LT., HABAL, MB., LEAKE, DL., MURRAY, JE. (1973). Compound silicone-bone implants for mandibular reconstruction. Development and application. *Plast Reconstr Surg.* **51**: 402-10.
51. BOYNE, PJ. (1969). Restoration of osseous defets in maxillofacial casualties. *J Am Dent Assoc.* **78**: 767.
52. BOYNE, PJ. (1973). Implants and transplants: review of recent research in this area of oral surgery. *J Am Dent Assoc.* **87**: 1074-80.
53. SCHWARTZ, HC. (1984). Mandibular reconstruction using the Dacron-urethane prosthesis and autogenic cancellous bone: review of 32 cases. *Plast Reconstr Surg.* **73**: 387-95.
54. CUMMINGS, CW., LEIPZIG, B. (1980). Replacement of tumor-involved mandible by cryosurgically devitalized autograft: human experience. *Arch Otolaryngol.* **106**: 252-4.
55. KELLMAN, RM., GULLANE, PJ. (1987). Use of the AO mandibular reconstruction plate for bridging of mandibular defects. *Otolaryngol Clin North Am.* **20**: 519-33.
56. RAVEH, J., STICH, H., SUTTER, F., GREINER, R. (1984). Use of the titanium-coated hollow screw and reconstruction plate system in bridging of lower jaw defects. *J Oral Maxillofac Surg.* **42**: 281-94
57. ACHAUER, BM., ERIKSSON, E., GUYURON,., COLEMAN, JJ., RUSSELL, RC. (2000). Plastic Surgery: Head and neck surgery; Plastic Surgery: Indications, Operations, and Outcomes. VOLUME 3 P;1067-287

58. ECKARDT, A., BARTH, EL., KOKEMUELLER, H., (2004). Recurrent carcinoma of the head and neck: Treatment strategies and survival analysis in a 20-year period. *Oral Oncol***40**: 427.
59. TARNAL, K. (1954). Operative metallentese-implantation in einer sitzung zum ersatz des fehlenden unterkieferkörpers. *Dtsch Zahn Mund Kieferheilkd* **19**: 288, 1954.
60. LIN, PY., LIN, KC., JENG, SF. (2011). Oromandibular reconstruction: the history, operative options and strategies, and our experience. *ISRN Surg.* **11**: 824251.
61. SPIESSL B. New Concepts in Maxillofacial Surgery. New York, NY: Springer- Verlag NY Inc; 1976:156-166.
62. KIM, MR., DONOFF, RB. (1992). Critical analysis of mandibular reconstruction using AO reconstruction plates. *J Oral Maxillofac Surg.* **50**: 1152-7.
63. ZWETYENGA, N., PINSOLLE, J., SIBERCHICOT, F., MAJOUFRE-LEFEVBRE, C. (2002). Reconstruction of lateral mandibular defects with dynamic bridging plates. *Br J Oral Maxillofac Surg.***40**: 307-12.
64. MARIANI, PB., KOWALSKI, LP., MAGRIN, J. (2006). Reconstruction of large defects postmandibulectomy for oral cancer using plates and myocutaneous flaps: a long-term follow-up. *Int J Oral Maxillofac Surg.* **35**: 427-32.
65. KLOTCH, DW., GAL, TJ., GAL, RL. (1999). Assessment of Plate Use for Mandibular Reconstruction: Has Changing Technology Made a Difference?. *Otolaryngol Head Neck Surg* **4**: 388-392.
66. SCHONNING, H., EMSHOFF, R. (1988). Primary temporary AO plate reconstruction of the mandible. *Oral Surg Oral Med Oral Pathol Oral Radiol***86**: 667-672.
67. SPENCER, KR., SIZELAND, A., TAYLOR, GI., WIESENFELD, D. (1999). The use of titanium reconstruction plates in patients with oral cancer. *Int J Oral Maxillofac Surg***28**: 288-290.
68. BOYD, JB., MULHOLLAND, S. (1993). Fixation of the vascularized bone graft. *Plastic Recons Surg.*
69. BRANEMARK, PI., LINDSTROM, J., HALLEN, O., BREINE, U., JEPPSON, PH., OHMAN, A. (1975). Reconstruction of the defective mandible. *Scand J Plast Reconstr Surg.***9**: 116-28.
70. BOYD, JB., MORRIS, S., ROSEN, IB., GULLANE, P., ROTSTEIN, L., FREEMAN, JL. (1994). The through-and-through oromandibular defect: rationale for aggressive reconstruction. *Plast Reconstr Surg.* **93**: 44-53.
71. DAVIDSON, J., BOYD, B., GULLANE, P., ROTSTEIN, L., FREEMAN, J., MANKTELOW, R., ROSEN, IA. (1991). comparison of the results following oromandibular reconstruction using a radialforearm flap with either radial bone or a reconstruction plate. *Plast Reconstr Surg.***88**: 201-8.
72. BOYD, JB. (1994). Use of reconstruction plates in conjunction with soft-tissue free flaps for oromandibular reconstruction. *Clin Plast Surg.***21**: 69-77.
73. BOYD, JB., MULHOLLAND, RS., DAVIDSON, J., GULLANE, PJ., ROTSTEIN, LE., BROWN, DH., FREEMAN, JE., IRISH, JC. (1995). The free flap and plate in oromandibular reconstruction: long-term review and indications. *Plast Reconstr Surg.***95**: 1018-28.
74. RAVEH, J., STICH, H., SUTTER, F., GREINER, R. (1982) [Current possibilities of reconstruction of the lower jaw in bony defects following tumor resection. Animal experiments and clinical results]. *Chirurg.* **53**: 459-67.
75. RAVEH, J., STICH, H., SUTTER, F., SCHAWALDER, P. (1981). [New reconstruction potentials in mandibular defects after tumor resection]. *SSO Schweiz Monatsschr*

- Zahnheilkd.***91**: 899-920.
76. COLETTI, DP., ORD, R., LIU, X. (2009). Mandibular reconstruction and second generation locking reconstruction plates: Outcome of 110 patients. *Int. J. Oral Maxillofac. Surg.***38**: 960-963
 77. BLACKWELL, KE., LACOMBE, V. (1999). The Bridging Lateral Mandibular Reconstruction Plate Revisited. *Arch Otolaryngol Head Neck Surg.***125**: 988-993.
 78. HERFORD, AS., ELLİS, E. (1998). Use of a locking reconstruction bone plate/screw system for mandibular surgery. *J Oral Maxillofac Surg.* Nov;**56(11)**:1261-5.
 79. SIMITH, WR., ZIRAN, BH., ANGLIN, JO., STAHEL, PH. (2007). Locking Plates: Tips and Tricks. *J Bone Joint Surg Am*,**89**: 2298-2307.
 80. ARIAS-GALLO, J., MAREMONTI, P., GONZALEZ-OTERO, T., GOMEZ-GARCIA, E., BURGUENO-GARCIA, M., CHAMORRO, PM., MARTOREL-MARTINEZ, V.(2004). Long term results of reconstruction plates in lateral mandibular defects. Revision of nine cases. *Auris Nasus Larynx.* **31**: 57-63.
 81. GUTWALD, R., ALPERT, B., SCHMELZEISEN, R. (2003). Principle and stability of locking plates. *Keio J Med***52**: 21-24
 82. MARX, RE., STERN, D. (2003). Oral and Maxillofacial Pathology: A Rationale for Diagnosis and Treatment. Carol Stream, IL: Quintessence Publishing Co., Inc.:635-703