4. Jessup M, Brozena S. Heart failure. *N Engl J Med*. 2003;348: 2007-2018.
5. Kaplan NM, Opie LH. Controversies in hypertension. *Lancet*. 2006;367:168-176.
6. Nussberger J, Cugno M, Amstutz C, et al. Plasma bradykinin in angio-oedema. *Lancet*. 1998;351:1693-1697.
7. Greaves M, Lawlor F. Angioedema: manifestations and management. *J Am Acad Dermatol*. 1991;25:155-161; discussion 61-65.
8. Gouvea AF, Ribeiro AC, Leon JE, et al. Head and neck amyloidosis: clinicopathological features and immunohistochemical analysis of 14 cases. *J Oral Pathol Med*. 2012;41: 178-185.
9. Penner CR, Muller S. Head and neck amyloidosis: a clinicopathologic study of 15 cases. *Oral Oncol*. 2006;42: 421-429.
10. Lebowitz RA, Morris L. Plasma cell dyscrasias and amyloidosis. *Otolaryngol Clin North Am*. 2003;36:747-764.
11. Suresh L, Radfar L. Oral sarcoidosis: a review of literature. *Oral Dis*. 2005;11:138-145.
12. Batal H, Chou LL, Cottrell DA. Sarcoidosis: medical and dental implications. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*. 1999;88:386-390.
13. Nalini B, Vinayak S. Tuberculosis in ear, nose, and throat practice: its presentation and diagnosis. *Am J Otolaryngol*. 2006;27:39-45.
14. McAllister KA, MacGregor FB. Diagnosis of tuberculosis in the head and neck. *J Laryngol Otol*. 2011;125:603-607.
15. Kakisi OK, Kechagia AS, Kakisis IK, et al. Tuberculosis of the oral cavity: a systematic review. *Eur J Oral Sci*. 2010;118:103-109.
16. Mignogna MD, Muzio LL, Favia G, et al. Oral tuberculosis: a clinical evaluation of 42 cases. *Oral Dis*. 2000;6:25-30.
17. Wang WC, Chen JY, Chen YK, Lin LM. Tuberculosis of the head and neck: a review of 20 cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*. 2009;107:381-386.
18. Fatahzadeh M. Inflammatory bowel disease. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*. 2009;108:e1-e10.
19. Michailidou E, Arvanitidou S, Lombardi T, et al. Oral lesions leading to the diagnosis of Crohn disease: report on 5 patients. *Quintessence Int*. 2009;40:581-588.
20. Harty S, Fleming P, Rowland M, et al. A prospective study of the oral manifestations of Crohn's disease. *Clin Gastroenterol Hepatol*. 2005;3:886-891.
21. Girlich C, Bogenrieder T, Palitzsch KD, et al. Orofacial granulomatosis as initial manifestation of Crohn's disease: a report of two cases. *Eur J Gastroenterol Hepatol*. 2002;14: 873-876.
22. Neville BW, Damm DD, Allen CM, Bouquot JE. *Oral and Maxillofacial Pathology*. 3rd ed. Saunders; 2009.
23. Muzyka BC. Oral fungal infections. *Dent Clin North Am*. 2005;49:49-65, viii.
24. Epstein JB, Epstein JD, Le ND, et al. Characteristics of oral and paraoral malignant lymphoma: a population-based review of 361 cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*. 2001;92:519-525.
25. van der Waal RI, Huijgens PC, van der Valk P, et al. Characteristics of 40 primary extranodal non-Hodgkin lymphomas of the oral cavity in perspective of the new WHO classification and the International Prognostic Index. *Int J Oral Maxillofac Surg*. 2005;34:391-395.
26. Kolokotronis A, Konstantinou N, Christakis I, et al. Localized B-cell non-Hodgkin's lymphoma of oral cavity and maxillofacial region: a clinical study. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*. 2005;99:303-310.
27. Laskaris G, Stergiou G, Kittas C, et al. Hodgkin's disease involving the gingiva in AIDS. *Eur J Cancer B Oral Oncol*. 1992;28B:39-41.
28. Regezi JA, Sciubba JJ, Jordan RCK. *Oral Pathology: Clinical Pathologic Correlations*. 6th Ed. Saunders; 2012.
29. Palumbo A, Anderson K. Multiple myeloma. *N Engl J Med*. 2011;364:1046-1060.
30. McCarthy PL, Owzar K, Hofmeister CC, et al. Lenalidomide after stem-cell transplantation for multiple myeloma. *N Engl J Med*. 2012;366:1770-1781.
31. Attal M, Lauwers-Cances V, Marit G, et al. Lenalidomide maintenance after stem-cell transplantation for multiple myeloma. *N Engl J Med*. 2012;366:1782-1791.
32. Palumbo A, Hajek R, Delforge M, et al. Continuous lenalidomide treatment for newly diagnosed multiple myeloma. *N Engl J Med*. 2012;366:1759-1769.

CLINICAL PATHOLOGIC CONFERENCE CASE 3: PAINFUL, MOBILE MANDIBULAR MOLAR

RH Younis, R Gold, RF Reich, College of Dental Surgery, University of Maryland, Baltimore; Private Practice, Randolph, NJ; New York Presbyterian Hospital

Clinical Presentation: A 73-year-old man presented to his general dentist with a chief complaint of 1-week history of a loose tooth and pain of the left mandible. The patient had a medical history significant for chronic obstructive pulmonary disease (COPD) and chronic cough, but was not on any medications except for naproxen on occasion for pain. The patient reportedly smoked half a pack of cigarettes a day for many years. Extraoral examination showed swelling of the left side of the face over the body of the mandible. Red crusty to papular cutaneous lesions were scattered on the skin of the forehead, ear, chin, and neck (Figure 1). A periapical radiograph showed a large restoration and evidence of destruction of the crown of the left second mandibular molar. Involvement of the furcation

Fig. 1. Extra-oral examination shows swelling of the left face overlying the body of the mandible extending to the angle and ascending ramus. Red crusty to papular cutaneous lesions spread over the skin of the forehead, ear, chin, and neck.

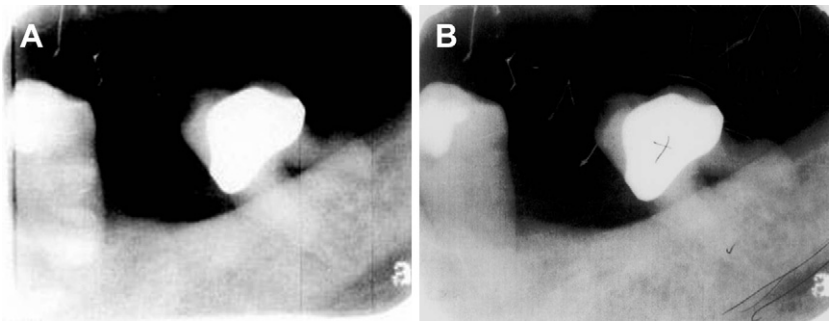

Fig. 2. **A**, Periapical radiograph of the left second mandibular molar shows a large restoration and evidence of involvement of the furcation area, significant resorption of the distal root and bone. Radio-opacity of the crestal bone extends to overshadow the mesial root. **B**, Enhanced contrast view shows mottled to patchy radiolucency throughout the tooth-bearing area that is accentuated at the distal area.

Fig. 3. One week after extraction. Non-healing extraction socket shows inflamed surrounding gingival tissue, necrotic and granulation-like tissue extruding from the socket.

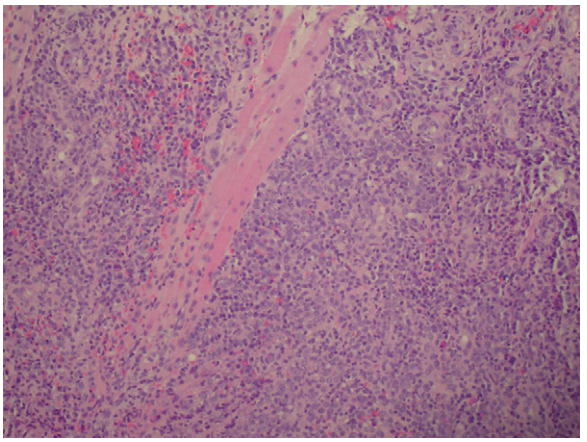

Fig. 5. Diffuse infiltration of muscle by atypical myeloid cells (hematoxylin and eosin; magnification ×100).

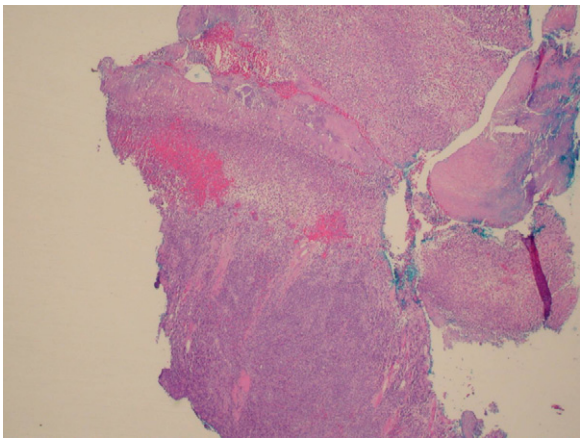

Fig. 4. Low-power view of diffuse round blue cell infiltrate with a large zone of necrosis (hematoxylin and eosin; magnification ×20).

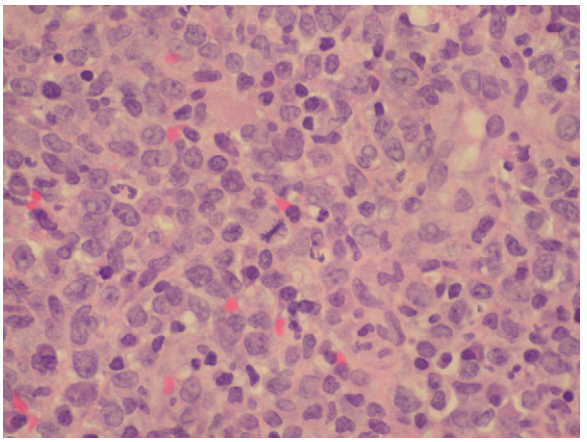

Fig. 6. Tumor cells exhibiting convoluted nuclei, prominent nucleoli, and atypical mitotic figures (hematoxylin and eosin; magnification ×400).

area and significant resorption of the distal root was noted. A mottled-to-patchy radiolucency of the tooth-bearing area, with areas of radiopacity at the crestal bone and overshadowing the mesial root of the left second mandibular molar, was evident (Figure 2). The patient was prescribed an antibiotic and referred to an oral surgeon. Tooth number 18 was extracted by the oral surgeon and the surrounding tissue was harvested and submitted for pathologic examination. At 1 week follow-up, the patient