Overlooking Impacted Canines

Over the last 18 months, I have been treating the son of a good friend and colleague for what, at first glance, appeared to be a run-of-the-mill Class II, division 1 malocclusion. In the initial examination, the young man demonstrated minor crowding in both arches, a moderately deep bite, and, of course, the Class II. By my clinical judgment and his mother’s appraisal, he had good facial esthetics; although his Class II yielded a convex profile, he was what my teen-age daughters would categorize as “cute”. The boy’s mother, my colleague, while not a dentist herself, has been actively involved with dental research for more than 20 years. Her awareness of her own and her kids’ dental conditions surpasses that of most of the other parents I work with. Still, because her son is a handsome young man, with or without his malocclusion, the acuity of his orthodontic situation was never a pressing concern—until we took a panoramic radiograph.

When the family decided to go ahead with treatment, the panorex in our initial radiographic series revealed that the upper left permanent canine was fully impacted. The mother had missed it, his pediatric and general dentists had missed it, and (mea culpa) in my initial clinical exam, I had missed it. I should add that the patient’s retained deciduous cuspid was unusually large and shaped much like a permanent cuspid, but I still have twinges of guilt over not spotting it right away. Fortunately, the impaction jumped right out at me as soon as I sat down with the radiographs to do the workup.

Now, what I originally thought was a garden-variety Class II had become a complicated case. When I pointed this out to the mother, she was as aghast at having missed the impaction as I was. I hastened to explain that after surgical exposure and forced eruption of the tooth, her son would probably grow up to be a handsome, productive, and socially normal individual. The biggest concern was the four to 12 months that would be added to the estimated treatment time. As it turned out, the surgery went well, and, as of the patient’s most recent visit, the erup-
tion of the tooth is proceeding nicely.

There are several lessons to be learned here. First of all, the panoramic radiograph is invaluable in our diagnostic armamentarium. While this impaction did show up on our cephalogram, it was too high to have been seen on the typical bitewing and periapical radiographs taken during annual dental check-ups. The second lesson is that it is not always easy to distinguish a retained deciduous tooth from its adult successor. In this case, the difference was missed by at least three highly competent dentists of different specialties. The last lesson is that impacted canines—and indeed, all impactions—are complications requiring special attention and additional treatment time and expense.

A search of the JCO Online Archive reveals no fewer than 23 articles on this subject since 1967, presenting a variety of clinical techniques and appliances for handling impacted canines. I especially recommend an interview with Dr. James F. Mulick (JCO, December 1979) for a good overview. I should also mention the excellent book by Dr. Adrian Becker devoted entirely to impacted canines. Our current issue contains two more approaches to the problem—one involving the Wave Spring of Dr. Vogt and another, by Dr. Park and colleagues, adding to the seemingly endless list of applications for the versatile microscrew.

Given the wealth of literature available on dealing with impacted cuspids, it seems that our major problem is not how to treat them, but how often they can go overlooked without fastidious diagnostic regimens in pediatric dental, general dental, and orthodontic offices. I am beginning to believe that a panoramic x-ray should be taken at least annually, just as bitewings have been done for years.

RGK