

Table S1. The result of gingival condition of impacted maxillary canine and central incisors after closed-eruption approach.

Author	samples	Impacted tooth	Overall Gingival Health (OGH)		
			KT	GM	GC
Nicola A. Parkin et al 2015	67	-33 impacted palatal Canine: Closed-eruption -34 impacted palatal canine: open eruption	Which canine looks best with gum health? -Closed-eruption approach Orthodontists: 51.1%-56.2% (53.7%) Laypeople: 35.7%-37.6% (36.7%) -Open eruption approach Orthodontists: 50.5%-55.4% (52.9%) Laypeople: 35.5%-37.5% (36.5%) (OGH is better for Closed-eruption approach)		
Crescini A et al 2007 (a)	125	Canine: Palatal=78 Labial=47	-Test: 4.5±1.2 mm -Control: 4.2±0.9 mm	-	-
Crescini A et al 2007 (b)	168	canine Palatal =118 Labial=50	4.42±1.19 mm	-	-
Olga-Elpis G et al 2008	1	2 impacted teeth: Maxillary (Central Incisors)	mild discrepancy (no mm given)	-	acceptable
Teresa Pinho 2012	1	3 impacted teeth: Maxillary (2 central incisors 1 canine)	Adequate (no mm given)	-	Normal
Xiang Ru Shi et al 2015	50	Maxillary Central incisor (Immature)		-34 cases= Confirmed with contralateral incisors -5 cases= 0.5mm more apical -4 cases= 1.0mm more apical -4 cases= 1.5mm more apical -3 cases= 2.0mm more apical	
Xingru Shi et al 2015	30	Maxillary Central incisor (Immature)		0.5 mm more apical than contralateral incisors	

Table S2. The Result of Periodontal Pocket Depth of Impacted Maxillary Canine treated with Closed-eruption approach.

Authors	Samples	Tooth Impaction	Periodontal Pocket Depth
Smailiene D et al 2013	43	-Canine (Palatal side) Open eruption: Group1= 22 samples Closed-eruption: Group2=21 samples	-Group 1 Test=2.14mm(SD,0.38) Control=1.95mm(SD,0.38) -Group2 Test=2.28mm(SD,0.69) Control=2.20mm(SD,0.42)
Crescini A et al 2007(a)	125	Canine: Palatal=78 Labial=47	-Test: 1.9±0.6mm -Control: 1.7±0.6mm
Crescini A et al 2007(b)	168	canine Palatal =118 Labial=50	2.54±0.45mm (1.5 to 4.5mm)
Teresa Pinho 2012	1	3 impacted teeth: Maxillary (2 central incisors 1canine)	Good Periodontal support (no mm given)

Table S3. The Result of Periodontal Pocket Depth of Impacted Maxillary Canine treated with Closed-eruption approach.

Authors	Samples	Tooth Impaction	Crown length
Nicola A et al 2013	62	Impacted Palatal Canine: Closed-eruption: 29 cases Open eruption: 33 cases	Closed-eruption: shorter than contralateral side: 0.0-1.0mm(0.5mm) Open eruption: Shorter, equal, longer than contralateral side -0.5-0.5mm (0mm)
Nicola A et al 2015	67	Impacted palatal Canine: Closed-eruption: 33 cases Open eruption: 34cases	Closed-eruption: Orthodontists:59.5% (56.8-62.2%) Laypeople: 43.1% (41.6-44.6%) Open eruption: Orthodontists:58.8% (56.2-61.4%) Laypeople: 44.2% (42.7-45.6%) (Higher percentages, better crown length)
Xiangru Shi et al 2015	30	Impacted immature maxillary central incisors	-Test: 9.87mm -Control: 9.37mm
Olga-Elpis G et al 2008	1	2 Impacted Maxillary central Incisors	Mild discrepancy (emergence profile)
Teresa Pinho 2012	1	3 impacted teeth: Maxillary (2 central incisors 1 canine)	Crown length was achieved with smile line