Evaluation of Effective Condyle Positioning Assisted by 3D Surgical Guide in Mandibular Reconstruction Using Osteocutaneous Free Flap

Seong Ryoung Kim [1], Sam Jang [2], Kang-Min Ahn [1] and Jee-Ho Lee [1,*]

[1] Department of Oral and Maxillofacial Surgery, College of Medicine, University of Ulsan, ASAN MEDICAL CENTER, Seoul 05505, Korea; alwaysyouth37@gmail.com (S.R.K.); ahnkangmin@hanmail.net (K.-M.A.)

[2] Coreline Soft, Seoul 03991, Korea; semyeong.jang@corelinesoft.com

* Correspondence: jeehoman@amc.seoul.kr or jeehoman@gmail.com; Tel.: +82-2-3010-1757

Table S1. Intra-rater and inter-rater reliability.

Landmark	Intra-Rater Reliability			Inter-Rater Reliability		
x-coordinate						
CL	0.987	(0.979	, 0.999)	0.996	(0.982	, 0.999)
CM	0.998	(0.995	, 0.999)	0.998	(0.994	, 0.999)
CC	0.998	(0.994	, 0.999)	0.997	(0.991	, 0.999)
ME	0.998	(0.993	, 0.999)	0.986	(0.959	, 0.999)
y-coordinate						
CL	0.999	(0.999	, 1.000)	0.989	(0.989	, 1.000)
CM	0.989	(0.989	, 1.000)	0.999	(0.999	, 1.000)
CC	0.999	(0.999	, 0.999)	0.989	(0.989	, 0.999)
ME	0.999	(0.999	, 0.999)	0.999	(0.999	, 0.999)
z-coordinate						
CL	0.997	(0.987	, 0.999)	0.997	(0.990	, 0.999)
CM	0.987	(0.981	, 0.999)	0.998	(0.995	, 0.999)
CC	0.998	(0.994	, 0.999)	0.998	(0.995	, 0.999)
ME	0.997	(0.989	, 0.999)	0.998	(0.993	, 0.999)

ICC and 95% confidence interval

Table S2. Changes (mm) in positions of landmarks between immediate postoperative (T1) and preoperative stage (T0) in intact side of mandible.

Landmark	OCFF	DCIA	FFF
	n = 15	n = 10	n = 5
	Mean (SD)	Mean (SD)	Mean (SD)
CL			
x	0.76 (0.60)	0.66 (0.46)	0.96 (0.36)
y	0.38 (0.31)	0.40 (0.36)	0.33 (0.21)
z	0.20 (0.30)	0.21 (0.36)	0.36 (0.33)
D	1.02 (0.50)	0.96 (0.39)	1.12 (0.39)
CM			
x	0.65 (0.48)	0.50 (0.47)	0.93 (0.54)
y	0.39 (0.19)	0.42 (0.19)	0.18 (0.18)
z	0.44 (0.48)	0.48 (0.56)	0.24 (0.28)
D	1.03 (0.42)	0.99 (0.45)	1.02 (0.53)
CC			
x	0.67 (0.49)	0.54 (0.44)	0.78 (0.61)
y	0.27 (0.23)	0.32 (0.25)	0.35 (0.50)
z	0.30 (0.30)	0.33 (0.32)	0.38 (0.43)
D	0.87 (0.48)	0.79 (0.46)	1.10 (0.62)