

Implantation reports of 3.0/ 3.5mm PUNCHTac™ Anchor PEEK System: A Retrospective Study

Dunamis Research and Scientific Team

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Objective:

The purpose of this study was to analyze the performance of Dunamis Medical's 3.0mm PunchTac™ Anchor PEEK Preloaded with One #2 DFX Force Suture and 3.5mm PunchTac™ Anchor PEEK Preloaded with Two #2 DFX Force Suture for instability repair/ reconstruction, remplissage biceps tenodesis, rotator cuff repair / Superior Capsular Reconstruction application.

Materials and Methods:

The data was obtained from 2 senior authors who performed implantations at 3 different medical centers. 3.0mm PunchTac™ Anchor PEEK Preloaded with One #2 DFX Force Suture (28A), 3.5 mm PunchTac™ Anchor PEEK Preloaded with two #2 DFX Force Suture (29A) were implanted using a positioning tool and technique described in the surgical manual. The data was obtained retrospectively on implantations performed between May 2018 to December 2018. The system was evaluated for suture breakage, anchor pull out and anchor fracture. The age group of patients were noted.

Results:

The anchors were implanted for labral repair, biceps tenodesis, superior capsular reconstruction on the glenoid side of the repair. The patients aged from 20 years to 68 years (Table 2, 3). 51 consecutive anchor implantations were performed. Both orthopedic surgeons observed no failures in terms of suture breakage and anchor pull out. However, 1 anchor fracture was observed due to improper drill bit size during biceps tenodesis. The anchor was inserted 75% into the pilot hole and was not advancing so the tip was amputated. The fixation quality was not compromised and sliding mechanism was intact to perform a stable repair. The surgeon did not find it necessary to remove and replant a new anchor. (Table 1).

Conclusion:

Dunamis Medical’s 3.0 and 3.5mm PunchTac™ Anchor PEEK System showed no suture breakage, anchor pull out or anchor fracture. Thus, indicating their use in soft tissue to bone repairs. The anchors presented for the study were approved for shoulder, knee, ankle and elbow.

Table 1: 3.0/ 3.5mm Push-In Anchors - Implantations

Month, 2018	Anchor Type	Surgeon # 1	Failures	Surgeon # 2	Failures
May	28A	2	0	0	0
	29A	2	0	0	0
June	28A	2	0	0	0
	29A	4	0	0	0
July	28A	4	0	0	0
	29A	3	0	0	0
August	28A	0	0	0	0
	29A	1	0	0	0
September	28A	0	0	0	0
	29A	9	0	0	0
October	28A	0	0	3	0
	29A	4	0	0	0
November	28A	0	0	0	0
	29A	2	0	0	0
December	28A	0	0	7	0
	29A	4	0	4	0

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Table 2: Patient Age Group

28A – 3.0mm preloaded with one #2 DFX Force Sutures

	20	20-35	35-50	50-65	65-68
	Years	Years	Years	Years	Years
Surgeon 1	1	0	0	2	1
Surgeon 2	0	2	1	0	0

Table 3: Patient Age Group

29A – 3.5mm preloaded with two #2 DFX Force Sutures

	20	20-35	35-50	50-65	65-68
	Years	Years	Years	Years	Years
Surgeon 1	2	1	11	8	2
Surgeon 2	0	0	1	2	1