Original Research

A survey on knowledge level among the Implantologists on the major causes of the implant failure

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ABSTRACT

Aim: The objective of this survey was to assess the knowledge on implant failures among the Implantologist of Bhopal, Madhya Pradesh.

Methods and Material: Questionnaire was validated amongst 10 people; Cronbach's Alpha was 0.805, so the standard of questionnaire was made according to the dental health professionals.

Data analysis, description, and presentation were performed by using the Statistical Package for the Social Sciences software, version 23.0 (SPSS, Chicago, Illinois). Frequencies were calculated regarding demographic profile and knowledge of dental health professionals and chi-square test was used to calculate the significant difference between various groups. p- Value < 0.05 was considered significant. Result: The questionnaire was completed by total no. of 115 participants. The data obtained was analyzed using SPSS, Chicago, Illinois software; showed that 94.6% participants preferred Implant placement as the treatment modality in their clinical practice. Majority of the participants believed that most of the factors are responsible for the implant failures. But only the MDS participants based on their knowledge understand that factors such as type of prosthesis, loading protocols and cementation or screw retained prosthesis make a significant difference. Also the use of Antibiotics is still controversial and more research is required in this field.

Conclusions: From the survey it can be concluded that implantologists had widespread knowledge on the factors responsible for the implant failures.

INTRODUCTION

Implants have been used as a dental prosthesis for many decades. They are the nearest analogue for the replacement of the natural tooth. Consequently it is a useful annexation in the management of patients who have lost their teeth due to disease, trauma or developmental anomalies. In contempt of the fact that dental implant routinely have a high success rate, failure of dental implant also eventuate. In reminiscing the success rate of dental implant, commencing from the treatment plan, surgical protocol, pre-op and post-op medications to the prosthetic treatment options, failure of implants may occur.

Our awareness and perception in implant science has evolved from the pioneer work of Brånemark describing Osseo-integration in the 70s to the more novel digital reinforcement in the implant dentistry. Correspondingly, the estimate outcome of dental implants has remarkably evolved. Biological understanding of wound healing, refinement of surgical procedures and the implant surface texture and design have challenged the initial treatment guidelines that were established by pioneers in implant dentistry over the last four decades.³

To avoid the failure of the dental implants a dentist should have a thorough knowledge of the surgical and prosthetic protocols of the dental implant procedure and

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should also be aware of the new advancements in the field of the implantology.

A well Osseo-integrated implant shows survival rates of more than 90% in long-term studies.^{4,5} In contempt of these high survival rates, implant treatment still have some complications and failures. From the previous studies it had been reported that there are early failures in 0.7% to 7.4% of cases and late failures in 2.1% to 11.3% of cases.⁴

The objective of this study was to assess the knowledge on the causes of the failure of dental implants among the Implantologist in Bhopal.

Subjects and Methods:

This observational cross-sectional study was carried out using an electronic survey. The closed semi structured questionnaire was prepared to investigate the knowledge of implant failure among the implantologists. The questionnaire was designed on web based designing tool and it was mailed to the practitioners. Questionnaire was validated amongst 10 people; Cronbach's Alpha was 0.805, so the standard of questionnaire was made according to the dental health professionals.

Data analysis, description, and presentation were performed by using the Statistical Package for the Social Sciences software, version 23.0 (SPSS, Chicago, Illinois). Frequencies were calculated regarding demographic profile and knowledge of dental health professionals and chi-square test was used to calculate the significant difference between various groups. *p*- Value < 0.05 was considered significant. The questionnaire for the study included 19 questions.

- Do you prefer the dental implant as a treatment modality in your clinical practice? (a)Yes (b) No
- Does the bone quality affect the success on implants?
 (a) Yes
 (b) No
- Does oral hygiene has any role in implant failures?
 (a) Yes
 (b) No
- Does the failure of implants depend on the case selection?
 (a) Yes
 (b) No

- 5. Does the type of surgical techniques affect the failure of the implant? (a)Yes (b)

 No
- 6. Does the implant type have any role in implant failure? (a)Yes (b)No
- Does the choice of bone grafts affect the implant failure? (a)Yes (b)
- Does the existing periodontal disease affect the implant failures? (a)Yes (b)
 No
- 9. Does the parafunctional habit leads to implant failure? (a)Yes (b) No
- 10. Does the general medical health affect the implant failure? (a)Yes (b) No
- 11. Does the local antibiotic application affect the implant failure? (a)Yes (b) No
- 12. Does systemic antibiotic affects the failure of implant? (a)Yes(b) No
- 13. Which mode of local anaesthesia do you prefer during implant surgery?
 - (a) Nerve block (b) local infiltration
- 14. Does the implant loading have any role in the implant failure? (a)Yes(b) No
- 15. Does the type of prosthesis affect the implant failure? (a)Yes(b) No
- 16. In which type prosthesis has chances of implant failure are less?
 - (a) Cement retained(b) screw retained(c) Both(d) depending on the condition of the abutment.
- 17. According to you which type of the cement is better for the cementation of prosthesis on the implants?
 - (a) Zinc phosphate(b) GIC(c) Resin cement(d) zinc polycarboxylate cement
- 18. According to you which type of loading leads to implant failure?
 - (a) Immediate loading (b) early loading (c) delayed loading (d) depending on the torque.
- 19. According to you which type of the prosthesis has more rate of failure in implant treatment?

(a)Implant supported overdenture (b) hybrid denture.

Results:

The questionnaire designed for the survey cover the demographic details of the participants, assessment of knowledge of factors leading to implants failure based on their clinical practice and the experience. All the 115 participants were asked to attempt the questions and put their level of impact on the following based on their knowledge about the Implants.

Socio-demographic details of the patient:

The characteristics of the participants are described in Table-1. From the total no. of 115 respondents 50.4% were MDS, 33.9% were BDS and 15.7% were PG Diploma out of which 46.1% had an experience of 0-5 years and 15.7% had more than 15 years of experience. Amongst all the participants most of them (71.3%) had placed less than 100 No. of Implants.

Knowledge of dentists regarding implant failure based on educational qualification:

The analysis of the obtained data shows that 94.6% of the total practitioners preferred Implantology as a treatment modality in their practice. Table-2 describe the various factors leading to failure of implants such as oral hygiene measures, case selection, periodontal disease, bone quality, type of implant placed, surgical technique used, also deleterious habits play a major role in implant success. The results are highly significant as the p-Value is less than 0.05. All the MDS, BDS, PG Diploma had a great knowledge based on these criteria. But only the MDS were able to judge various other important factors. Among all the participants, 45.5% were in the favor of systemic antibiotics for the implant survival preoperatively and post-operatively. 96.4% of the implantologist agreed that the type of implant loading plays a major role. 98.2% favors the type of the Journal Of Applied Dental and Medical Sciences 6(1);2020

prosthesis affects the implant survival. Majority of the implantologist prefer nerve block before the implant surgery, only 33% among them use local infiltration for the implant surgery. 24% of the implantologist favor the screw retained prosthesis to reduce the failure of the implant and 58% among them agreed that it depends on condition of the abutments. 45% of the dentist preferred resin cement for the cementation of the prosthesis. 67% of the implantologist accepted that the torque applied during insertion of implant is responsible for the failure of implant. 56% of the dentist agreed that hybrid denture leads to more implant failure than implant supported denture. Based on these it could be concluded that MDS practitioners had the highest knowledge regarding all the factors leading to the success or the failure of Implants while BDS had the least knowledge.

Based on the assessment there was no statistically significant difference between the knowledge level of the respondents based on their experience (< 5years, 5-10 years, 10-15 years or >15 years). The participants having the experience of 0-5 years include the undergoing postgraduates or the newly passed starting with their clinical practice. As the dental implants education is included in the curriculum of an undergraduate therefore, the theoretical knowledge regarding the failure of implants is found to be similar. With the increase in years of practice it is believed the skills are enhanced and errors and failures are reduced.

There was no significant difference in the knowledge among the college practitioners and private practitioners. The same result was observed among the dentists on placement of the number of implants.

Discussion:

The use of dental implants has been a revolutionary step as the recent advancement in the field of dentistry. In such a way the missing teeth can be well managed. Since there are many advantages of dental implants there is increased demand of them nowadays. However, failures are also encountered commonly in implant dentistry.

Amongst 115 participants of Bhopal in the present study, the demographic details lead us to assess the awareness and knowledge level based on their education, age, years of experience and the type of the practice they are doing. It can be attributed to increased interest in dental implants knowledge.

The opinion of the majority of studies is that the jaws with poor bone quality may be at higher risk of early implant failures as there is low initial stability and lack of mechanical stresses.6Arad Schwartz et al in his study reported that the implants have more failure rate when placed in bone qualities type III and IV.7,8In the more recent years, the implant dentistry has changed their focus from accomplishing osseointegration, which is highly predictable, to the maintenance of the perimplant tissues for the long term. Meffert et al in 1992 reported that an appropriate professional care, patient cooperation and effective home care can be helpful in obtaining the better oral hygiene and thus can assure a long term success of the implants.9, 10

As per the result, case selection is the most important step to avoid the implant failures. The dentist should be able to measure the risk level of a case before starting that may prevent it from the failure. This protocol should be opted in the early learning curve of choosing the case carefully.11

S Raiker et al in 2017, Reported in their study that the length and diameter of the implant are the factors which determine the rate of survival of implants.12 The surface texture and the coating on the implant surface also make a significant change in survival of the implants.

Elias CN et al in 2012 reported that the impact of the surgical technique is more considerable than that of the

implant design.13Although there is a study contradictory to this result, explaining that there is no strong evidence that an undersized drilling, osteotome technique, flapless procedures can enhance the primary stability and the success of the implants.14

As the results showed that the bone grafts can affect the implant failures. The synonymous results were obtained by the study done by Elakkiya Set al in 2017 that the autogenous bone grafts can be preferred over other graft materials like xenografts and allografts in the implant sites as they are stable for at least 3-5 years and can prevent the failure.15

Chrcanovic BR et al in 2014 conducted a study giving the evidence which supports the concept that there is the increased rate of implant failure in the patient with the history of periodontal disease.16 In the case of the bruxers there is higher rate of implant failure as there is unpredictable and uncontrolled high loading of the implants results in micromotion of the implant and could

Table -1: Socio-demographic Details

AGE 25-35years 35-45 years 31(27%) 45 years or above 25(21.7%) GENDER Male 54(47%) Female 61(53%) EDUCATIONAL QUALIFICATION BDS 39(33.9%) MDS 58(50.4%) PG DILPOMA 18(15.7%) EXPERIENCE 0-5 Years 53(46.1%) 5-10 Years 32(27.8%)	EMOGRAPHIC PROFILE		N (%)
35-45 years 31(27%) 45 years or above 25(21.7%)			
GENDER 45 years or above 25(21.7%) Male 54(47%) Female 61(53%) EDUCATIONAL QUALIFICATION BDS 39(33.9%) MDS 58(50.4%) PG DILPOMA 18(15.7%) EXPERIENCE 0-5 Years 53(46.1%)	GE .	25-35years	59 51.3%)
GENDER Male 54(47%) Female 61(53%) EDUCATIONAL QUALIFICATION BDS 39(33.9%) MDS 58(50.4%) PG DILPOMA 18(15.7%) EXPERIENCE 0-5 Years 53(46.1%)		35-45 years	31(27%)
EDUCATIONAL QUALIFICATION BDS 39(33.9%) MDS 58(50.4%) PG DILPOMA 18(15.7%) EXPERIENCE 0-5 Years 53(46.1%)		45 years or above	25(21.7%)
EDUCATIONAL QUALIFICATION BDS 39(33.9%) MDS 58(50.4%) PG DILPOMA 18(15.7%) EXPERIENCE 0-5 Years 53(46.1%)	ENDER	Male	54(47%)
MDS 58(50.4%) PG DILPOMA 18(15.7%) EXPERIENCE 0-5 Years 53(46.1%)		Female	61(53%)
PG DILPOMA 18(15.7%) EXPERIENCE 0-5 Years 53(46.1%)	DUCATIONAL QUALIFICATION	BDS	39(33.9%)
EXPERIENCE 0-5 Years 53(46.1%)		MDS	58(50.4%)
		PG DILPOMA	18(15.7%)
5-10 Years 32(27.8%)	EXPERIENCE	0-5 Years	53(46.1%)
		5-10 Years	32(27.8%)
10-15 Years 12(10.4%)		10-15 Years	12(10.4%)
15 years or above 18(15.7%)		15 years or above	18(15.7%)
COLLEGE PRACTICE Yes 65(56.5%)	OLLEGE PRACTICE	Yes	65(56.5%)
No 50(43.5%)		No	50(43.5%)
NUMBER OF IMPLANTS Less than 100 82(71.3%)	JMBER OF IMPLANTS	Less than 100	82(71.3%)
More than 100 33(28.7%)		More than 100	33(28.7%)

QUESTIONS	BDS N(%)	MDS N(%)	PG DIPLOMA N(%)	p-value
Prefer implant as treatment modality in	Yes - 37(94.9%)	Yes - 58(100%)	Yes - 16(88.9%)	
clinical practice ?	No - 2(5.1%)	No – 0	No - 2(11.1%)	
Bone quality affect success on implants?	Yes -36(92.3%)	Yes -58(100%)	Yes - 15(83.3%)	0.000
5 5	No - 3(7.7%)	No – 0	No - 3(16.7%)	
Oral hygiene has any role in implant	Yes -39(100%)	Yes -58(100%)	Yes -19(100%)	-
failures?	No - 0	No - 0	No - 0	
Failure of implant depends on case	Yes -2(5.1%)	Yes - 58(100%)	Yes - 2(11.1%)	0.000
selection?	No - 37(94.9%)	No – 0	No - 16(88.9%)	
Type of surgical techniques affect the	Yes - 29(74.4%)	Yes - 51(87.9%)	Yes - 9(47.3%)	0.000
failure of implants?	No - 10(25.6%)	No - 7(12.1%)	No - 10(52.6%)	
Implant type have any role in implant	Yes - 35(89.7%)	Yes - 53(91.4%)	Yes - 14(77.8%)	
failure?	No - 4(10.3%)	No - 5(8.6%)	No - 4(22.2%)	
choice of bone grafts affect implant	Yes - 36(92.3%)	Yes - 49(84.5%)	Yes - 3(16.7%)	0.000
failures?	No - 3(7.7%)	No - 9(15.5%)	No - 15(53.5%)	
Existing periodontal disease affect implant	Yes - 35(89.7%)	Yes - 53(91.4%)	Yes - 14(77.8%)	
failure?	No - 4(10.3%)	No - 5(8.6%)	No - 4(22.2%)	
Para-functional habit affect the implant	Yes -36(92.3%)	Yes -58(100%)	Yes - 2(11.1%)	0.000
failure?	No - 3(7.7%)	No - 0	No - 16(88.9%)	

	T			
General medical health affect implant	Yes - 32(82.1%)	Yes -51(87.9%)	Yes - 3(16.7%)	0.000
failure?	No -7(17.9%)	No - 7(12.1%)	No - 15(83.3%)	
Local antibiotic affect implant failure?	Yes - 3(16.7%)	Yes - 0	Yes - 12(82.1%)	0.000
•	No - 36(83.3%)	No - 58(100%)	No - 7(17.9%)	
Systemic antibiotic affect the implant	Yes - 19(48.7%)	Yes - 49(84.5%)	Yes - 14(77.8%)	
failure ?	No - 20(51.2%)	No - 9(15.5%)	No - 4(22.2%)	
Which mode of local anaesthesia do you	Nerve block - 13(33.7%)	Nerve block - 51(87.9%)	Nerve block - 12(66.7%)	0.000
prefer during implant surgery?	Local infiltration -	Local infiltration -	Local infiltration - 633.7%)	
	26(66.7%)	7(12.1%)		
Implant loading has any role in implant	Yes - 36(92.3%)	Yes - 58(100%)	Yes - 15(83.3%)	
failure ?	No - 3(7.7%)	No – 0	No - 3(16.7%)	
Type of prosthesis affect the implant	Yes - 29(74.4%)	Yes - 51(87.9%)	Yes - 9(47.3%)	0.000
failure?	No - 10(25.6%)	No - 7(12.1%)	No - 10(52.6%)	
In which type of prosthesis the	Cement retained - 8(20.55)	Cement retained - 26(44.8%)	Cement retained – 0	0.000
chances of implant			Screw retained -	
failures are less?	Screw retained - 14(35.9%)	Screw retained -0	18(100%)	
	Both - 16(41%)	Both - 0	Both - 0	
	Dour - 10(4170)	Condition of	Condition of abutment - 0	
	Condition of	abutment -		
	abutment - 1(2.6%)	32(55.2%)		

Which cement is better for cementation	GIC - 25(64.1%)	GIC - 2(3.4%)	GIC - 8(44.4%)	0.000
of prosthesis on implants?	Zinc phosphate - 14(35.9%)	Zinc phosphate - 34(58.6%)	Zinc phosphate - 10(55.5%)	
	Resin cement - 0	Resin cement - 22(37.9%)	Resin cement - 0	
	Zinc polycarboxylate- 0		Zinc polycarboxylate- 0	
		Zinc polycarboxylate- 0		
which type of loading leads to implant failure ?	Immediate loading-5(12.8%) Early loading-10(25.6%) Delayed loading-14(35.8%) Depending on troques-0	Immediate loading- 0 Early loading-8(13.7%) Delayed loading - 0 Depending on troques -50(86.1%)	Immediate loading- 5(27.7%) Early loading- 1(5%) Delayed loading - 4(22.2%) Depending on troques - 8(44.4%)	0.000
Which type of prosthesis has more rate of failure in implant treatment?	Implant supported over denture - 21(53.8%) Hybrid denture - 18(46.1%)	Implant supported over denture - 18(31%) Hybrid denture - 40(68.9%)	Implant supported over denture - 8(44.4%) Hybrid denture - 10(55.5%)	

Table-3: knowledge of dental professional regarding implant failure based on experience

QUESTIONS	0-5 YEARS N(%)	5-10 YEARS N(%)	10-15 YEARS N(%)	15 YEARS & ABOVE N(%)	p-value
Prefer implant as treatment	Yes - 46(86.8%)	Yes - 27(84.4%)	Yes - 12(100%)	Yes - 18(100%)	0.314
modality in clinical practice ?	No -7(13.2%)	No - 5(15.6%)	No – 0	No - 0	

Bone quality affect success on implants?	Yes - 43(81.1%) No - 10(18.9%)	Yes - 27(84.4%) No - 5(15.6%)	Yes - 12(100%) No - 0	Yes - 18(100%)	0.448
Oral hygiene has any role in	Yes -53(100%)	Yes -32(100%)	Yes -12(100%)	No -0 Yes - 18(100%)	-
implant failures?	No - 0	No - 0	No – 0	No -0	
Failure of implant depends on case	Yes - 42(79.2%)	Yes - 27(84.4%)	Yes - 10(83.3%)	Yes - 18(100%)	0.314
selection?	No - 11(20.8%)	No - 5(16.6%)	No - 2(16.6%)	No – 0	
Type of surgical techniques affect	Yes - 42(79.2%)	Yes - 27(84.4%)	Yes - 10(83.3%)	Yes - 18(100%)	0.314
the failure of implants?	No - 11(20.8%)	No - 5(16.6%)	No - 2(16.6%)	No - 0	
Implant type have any role in	Yes - 36(67.9%)	Yes - 20(62.5%)	Yes - 10(83.3%)	Yes - 18(100%)	0.318
implant failure?	No -17(32.1%)	No - 12(37.5%)	No - 2(16.6%)	No - 0	
choice of bone grafts affect	Yes - 41(77.4%)	Yes - 26(81.3%)	Yes - 11(91.7%)	Yes - 18(100%)	0.720
implant failures?	No - 12(22.6%)	No - 6(18.8%)	No - 1(8.3%)	No - 0	
Existing periodontal	Yes - 41(77.4%)	Yes - 27(84.4%)	Yes - 11(91.7%)	Yes - 18(100%)	0.639
disease affect implant failure?	No - 12(22.6%)	No - 5(16.6%)	No - 1(8.3%)	No - 0	
Para-functional habit affect the	Yes - 38(71.7%)	Yes - 25(78.1%)	Yes - 12(100%)	Yes - 18(100%)	0.204
implant failure?	No - 15(28.3%)	No - 7(21.9%)	No - 0	No – 0	
General medical health affect	Yes - 12(22.6%)	Yes - 20(62.5%)	Yes - 11(91.7%)	Yes - 18(100%)	0.200
implant failure?	No - 41(77.4%)	No - 12(37.5%)	No - 1(8.3%)	No – 0	
Local antibiotic affect implant	Yes - 31(41.5%)	Yes - 12(37.5%)	Yes – 0	Yes - 0	0.108
failure?	No - 22(58.5%)	No - 20(62.5%)	No -12(100%)	No - 18(100%)	

Systemic antibiotic affect the implant failure?	Yes - 42(79.2%) No - 11(20.8%)	Yes - 26(81.3%) No - 6(18.8%)	Yes - 10(83.3%) No - 2(16.6%)	Yes - 18(100%) No - 0	0.688
Which mode of local anaesthesia do you prefer during implant surgery?	Nerve block - 26(49.1%) Local infiltration - 27(50.9%)	Nerve block - 27(84.4%) Local infiltration - 5(15.6%)	Nerve block - 12(100%) Local infiltration - 0	Nerve block - 18(100%) Local infiltration - 0	0.620
Implant loading has any role in implant failure?	Yes - 43(81.1%) No - 10(18.9%)	Yes - 27(84.4%) No - 5(16.6%)	Yes - 11(91.7%) No - 1(8.3%)	Yes - 18(100%) No - 0	0.640
Type of prosthesis affect the implant failure?	Yes - 42(79.2%) No - 11(20.8%)	Yes - 25(78.1%) No - 7(21.9%)	Yes - 10(83.3%) No - 2(16.6%)	Yes - 18(100%) No - 0	0.362
In which type of prosthesis the chances of implant failures are less?	Cement retained - 16(30.2%) Screw retained - 20(37.7%) Both - 7(13.2%) Condition of abutment - 10(18.9%)	Cement retained - 7(21.9%) Screw retained - 9(28.1%) Both - 7(21.9%) Condition of abutment - 9(28.1%)	Cement retained - 1(8.3%) Screw retained - 1(8.3%) Both - 1(8.3%) Condition of abutment - 9(75%)	Cement retained - 0 Screw retained - 0 Both - 0 Condition of abutment - 18(100%)	0.005

Which cement is better for cementation of prosthesis on implants?	GIC - 21(39.6%) Zinc phosphate - 13(24.5%) Resin cement - 11(20.8%) Zinc polycarboxylate-8(15.1%)	GIC - 1(3.1%) Zinc phosphate - 15(46.8%) Resin cement - 15(46.85) Zinc polycarboxylate- 1(3.1%)	GIC – 0 Zinc phosphate - 6(50%) Resin cement - 6(50%) Zinc polycarboxylate- 0	GIC - 0 Zinc phosphate - 8(44.4%) Resin cement - 10(55.5%) Zinc polycarboxyla te- 0	
which type of loading leads to implant failure ?	Immediate loading-25(47.2%) Early loading-9(17%) Delayed loading -8(15.1%) Depending on troques -11(20.8%)	Immediate loading- 4(12.5%) Early loading- 8(25%) Delayed loading - 6(18.8%) Depending on troques - 14(43.8%)	Immediate loading- 0 Early loading- 2(16.6%) Delayed loading - 1(8.3%) Depending on troques - 9(75%)	Immediate loading- 0 Early loading- 2(11.1%) Delayed loading -0 Depending on troques - 16(88.8%)	0.005
Which type of prosthesis has more rate of failure in implant treatment?	Implant supported over denture - 29(54.7%) Hybrid denture - 24(45.3%)	Implant supported over denture - 14(43.8%) Hybrid denture - 18(56.3%)	Implant supported over denture - 3(24.9%) Hybrid denture - 9(75%)	Implant supported over denture - 1(5.5%) Hybrid denture - 17(94.4%)	0.75

lead to fibrous encapsulation of the implants rather than osseointegration.

There is still a controversy on effect of antibiotic preoperatively and post-operatively in the rate of implant failures.17Among the oral health professionals there is no concurrence on the use of prophylactic antibiotics in conviction with dental implant surgeries.18Many studies advocated the use of mandibular infiltration rather than giving nerve block when implant placement did not utilize CBCT for nerve detection. For the mandibular infiltration technique VAS values of pain in patients, reported statistically higher than that of nerve block. And it is associated when there is higher surgical time significantly. So in such cases nerve block is the choice of local anesthesis.19

J Chen in 2019 compared early, immediate and conventional loading techniques in implant patients and evaluated that immediate loading is comparatively successful than the early loading but the conventional loading still have the less chances of failure as compared to both the laodings.20 The type of loading is mainly depends on the amount of the torque obtained during the insertion as per the many implantologist participated in this survey. The synonymous result has been obtained in a study conducted by Roberto Del Giudice et al in 2019 stated that more than 32 Ncm are lead to lower crestal bone loss and immediate laoding can be done. But also evaluated that there are no statistically significant differences among the two groups (torque >32 and <32 Ncm) for what concerning the failure rate during the 2 years of follow-up.21

Some of the studies evaluated showed that there is no statistically significant difference in failure rates between Journal Of Applied Dental and Medical Sciences 6(1);2020

cement retained and screw retained prosthesis. Although they also concluded that the remnants of the cement may lead to marginal bone loss indeed because of foreign body reaction but the failure rates will be seen after many years in situ. Makke A in 2017 reported that cement retained restoration may lead to failure more commonly as compared to the screw retained restorations.22As per the survey many implantologist suggest that the choice of the prosthesis depends on the height of the abutment which is the ideal mean of obtaining the retention of the prosthesis.

In the study conducted by Montenegro AC et al., stated that zinc phosphate has the highest retention property as compared to the resin cements and GIC.23butthere are some contradictory results obtained in some studies stated that resin cement is best for the implant prosthesis cementation as it makes the self-adhesive.24

Arthur M. Rodriguez et al in 2000 conducted a study resulted that surviving rate of bar supported overdenture and cap retained overdenture were 100% and 91% respectively and for screw retained hybrid denture 98.1% survival rate reported. The decision of overdenture and hybrid denture should be taken according to some factors such as economics, operator or patient preference. The researcher also described that the load factors and biomechanics should be kept in the consideration before designing the prosthesis for high survival rate. In this survey the there was no significant difference reported in the number of the participants opting for the hybrid and overdenture as a prosthesis for high survival rate.25

Chandarana DV et al in their study concluded that there is a requisite of amplification of the knowledge regarding the dental implant amongst the undergraduates as we

wish that the future dentists must be ingenious and skillful in relation to dental implant therapy.

Conclusion:

Nowadays we follow evidence based treatment guidelines in all fields of dentistry. This study shows us the reality where the practice of implants has reached in our profession. According to the result obtained by this survey, it can be concluded that there is a widespread knowledge amongst the practitioners. In general, it can be said that the implantologist knowledge and clinical preferences is similar to current evidence published in the literature. But it should be emphasized that implant failures are critical aspect in success of implants. Hence dentists should be updating their knowledge by attending workshops, CDE programmes, conferences so as to provide best treatment to the patients.

This survey provides a descriptive data and hence with this it can be concluded that amongst the various dental practitioners using Implant placement as a treatment protocol Implantologist have a widespread knowledge regarding the factors that are responsible for failure of Implant treatment.

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