

## **Prevalence Of Chronic Pulpitis Among Different Genders In Chennai Population**

**Nurul Husniyah Binti Che Soh**

Saveetha Dental College  
Saveetha Institute Of Medical And Technical Sciences  
Saveetha University  
Chennai-77  
Email : 151501090.Sdc@Saveetha.Com

**Dr.Iffat Nasim**

Professor  
Department Of Conservative Dentistry And Endodontics  
Saveetha Dental College  
Saveetha Institute Of Medical And Technical Sciences  
Saveetha University  
Chennai  
Email: Iffatnasim@Saveetha.Com

**Dr. Arthi Balasubramaniam**

Associate Professor  
Department Of Public Health Dentistry  
Saveetha Dental College  
Saveetha Institute Of Medical And Technical Sciences  
Saveetha University  
Chennai-77  
Email: Arthib.Sdc@Saveetha.Com

### **Abstract**

The Incidence Of Caries Or Trauma Can Cause Irritation To The Pulp And Periradicular Tissues Which May Result In Inflammation. Inflammation Of The Tissue Of The Pulp Over An Extended Period Of Time Can Cause Irreversible Changes To The Quality Of Pulp Tissue. This Study Was Carried Out To Evaluate The Prevalence Of Chronic Pulpitis Or Asymptomatic Irreversible Pulpitis Among Different Genders In The Chennai Population. A Retrospective Cross-Sectional Study Was Conducted Using The Patient Records From A Dental Hospital From June 2019 Until March 2020. Patients Diagnosed With Chronic Pulpitis Were Selected And Evaluated For Its Prevalence. Data Was Collected And Then Subjected To Statistical Analysis. Statistical Analysis: Microsoft Excel 2016 Data Spreadsheet Was Used To Collect Data And Later Exported To The Spss Software. Among 1003 Individuals Diagnosed With Chronic Pulpitis, 54% Found To Be Males, Slightly Higher Than Female Patients. Mandibular Molars Were Reported As The Most Commonly Involved In Comparison To Other Teeth. Based On Age Predilection, There Was A Declining Frequency Of Chronic Pulpitis In Older Individuals, With The 26-35 Index Age Group Showing The Highest. The Prevalence Of Chronic Pulpitis Among Adults In This Study Seemed To Be Higher In Males Than Females, With No Significant Difference Observed.

Keywords: Asymptomatic, Chronic Pulpitis, Irreversible Pulpitis, Symptomatic, Root Canal Treatment

## 1. Introduction

Oral Health Can Significantly Affect Quality Of Life(Gerritsen *Et Al.*, 2010). Even Though The Factors And Prevention Of Oral Diseases Are Well Known, The Prevalence Of Dental Caries Is An Evolving Dental Disease In Adults And Children In Both Developed And Developing Nations. The Occurrence Of Chronic Pulpitis Among Children If Left Untreated May Affect Growth And Well-Being(Sheiham, 2006). Patients Usually Try To Avoid Dental Treatment Especially When The Condition Is Not Severe Enough Or When It Is Painless. Fear And Deprived Background Is One Of Those Reasons For Not Attending Dental Treatment As The Cost Incurred Can Be Severe(Edelstein, 2002). For Acute And Chronic Pulpitis, The Only Treatment Options Are Root Canal Treatment Or In Worse Condition Extraction Is Advised(Bender, 2000).

Inflammation Occurs Due To Various Factors Including Caries Or Trauma That Results In Damage To The Pulpal And Periradicular Tissues. Injury Due To Dental Procedures Which Is Iatrogenic Results In Inflammatory Response. Infection That Is Caused By Bacteria Due To Caries, Or Those Leaked From Previous Restorations Create An Entry To The Pulp That Enhances Pulpal Damage(Kiranmayi, Anumala And Kirubakaran, No Date). Dental Pulp Is A Connective Tissue That Comprises Nerves, Blood Vessels And Various Cellular Components (Ali And Mulay, 2015) That Help To Supply Nutrients To The Tooth. Damage To The Pulp Can Cause Severe And Prolonged Pain And The Tooth May Become Non-Vital.

A Healthy Pulp Has The Ability To Regain Healing Due To Its Capacity To Repair Itself. However, Over Extended Exposure Time Towards Irritants, Pulp Tissue Is Unable To Repair Itself Due To Being Inflamed Or Fibrosis. Injury To The Pulp Can Cause Cell Death And Inflammation That Corresponds To The Intensity And Extremity Of Tissue Damage. Incipient Caries Result From Little Or No Inflammation Whereas Deep Caries Occur Due To Severe Inflammation. Inflammation To The Pulp Ranges From Little Or No Inflammation To Severe Consistent With Types Of Injuries Such As Incipient Caries And Deep Caries Respectively. Persistent Irritation To The Pulp Can Cause More Severe Inflammatory Changes. The Pulpal Response Ranges From Transient Inflammation That Is Reversible Pulpitis To Irreversible Pulpitis Depending On The Severity And Duration Of Exposure To The Irritant. These Changes May Or May Not Be Symptomatic As In Some Cases Patients Do Not Acknowledge The Damage To The Tooth (Sedgley, 2012).

The Most Common Cause Of Pulpal Invasion Is The Caries Through Bacterial Invasion (Dabuleanu, 2013). If The Caries Is Confined To The Primary Dentin Only, The Vitality Of The Tooth Mostly Can Be Preserved. However, Once It Progresses Into Reparative Dentin Of Pulp Tissue, The Vitality Of The Tooth Is Jeopardized. Pulp Inflammation Usually Results From Bacterial Invasion From A Carious Lesion. The Aetiology Of Pulpitis Are Physical, Chemical And Bacterial. Physical Includes Mechanical, Thermal And Electrical Injuries (Gopikrishna And Suresh Chandra, 2014).

Irreversible Pulpitis Is Defined As A Persistent Inflammatory Condition Of The Pulp That May Be Symptomatic Or Asymptomatic In Which The Pulp Is Incapable Of Healing. The Pain Is Severe And Lasts Longer, Spontaneous Pain, Boring, Gnawing Or Throbbing In Later Stages And Experienced Sharp, Piercing Or Shooting Pain. In Asymptomatic Irreversible Pulpitis Or Chronic Irreversible Pulpitis, There Are No Clinical Symptoms And Likely To Respond Normally Towards Thermal Testing But Had A History Of Trauma Or Deep Caries That Can Cause Exposure After Removal (Damyanova, Angelova And Andreeva-Borisova, 2018).

The Treatment Of Pulpitis Includes Complete Removal Of Pulp Or Pulpectomy, And Emergency Procedures Such As Removal Of Coronal Pulp Or Pulpotomy Can Be Done In Posterior Teeth. Nowadays, There Are Various Instruments Used To Prepare The Root Canal That Highly Contribute To The Success Rate Of Root Canal Treatment (Ramanathan And Solete, 2015). Furthermore, The Use Of Irrigants Play A Crucial Role In Debridement And Disinfection Of The Root Canal Space (Siddique *Et Al.*, 2019) As Complete Debridement, Disinfection Of The Pulpal Space Are Necessary For Predictable Long Term Success In Endodontic Treatment (Noor, S Syed Shahaab And Pradeep, 2016). As Established By Current Evidence Based Protocols, Root Canal Treatment Is Advised When The Tooth Is Diagnosed With Irreversible Pulpitis And When The Pulp Is Necrosed (Levine, 1988). Though It Is The Most

Indicated Treatment In Most Irreversible Pulpitis, Yet It Is Expensive, Complicated, Time-Consuming, And Non-Conservative In Addition To Often Considered As A Difficult Procedure For General Dentists (Tang, Wu And Smales, 2010). The Prevalence Of Pulpitis May Be Varied Among Different Populations And Gender. Therefore, This Study Was Conducted To Determine The Prevalence Of Chronic Pulpitis Among Different Genders In The Chennai Population.

Previously Our Team Has A Rich Experience In Working On Various Research Projects Across Multiple Disciplines The (Somasundaram *Et Al.*, 2015; Hafeez And Others, 2016; Krishnan *Et Al.*, 2018)(Choudhari And Thenmozhi, 2016; Dhinesh *Et Al.*, 2016; Gurunathan And Shanmugaavel, 2016; Sneha And Others, 2016; Govindaraju And Gurunathan, 2017; Kumar And Rahman, 2017; Felicita And Sumathi Felicita, 2018; Saravanan *Et Al.*, 2018; Vijayakumar Jain *Et Al.*, 2019; Wu *Et Al.*, 2019; Palati *Et Al.*, 2020; Paramasivam, Vijayashree Priyadharsini And Raghunandhakumar, 2020).This Study Was Conducted To Evaluate The Prevalence Of Chronic Pulpitis Among Different Genders.

## 2. Material And Methods

This Retrospective Study Was Conducted By Reviewing 86,000 Patient Records Of A Dental Hospital. A Total Of 1003 Case Records Diagnosed With Chronic Pulpitis Were Sorted Of Which Signed Informed Consent Were Retrieved. The Data Of Patients' Details Were Enumerated From The Dental Hospital Records From The Month Of June 2019 Until March Of 2020. This Study Has Been Approved By The University Hospital Research Committee With Ethical Approval Number Sdc/Sihec/2020/Diasdata/0619-0320. This Study Was Conducted To Estimate The Prevalence Of Chronic Pulpitis Among All The Subjects Who Were Subjected To Clinical And Radiological Examination.

The Inclusion Criteria Were Older Than 18 Years Old, Diagnosed With Chronic Pulpitis (Asymptomatic Irreversible Pulpitis). Exclusion Criteria Was Below 18 Years, Completely Edentulous, Medically Compromised And Patients Requiring Special Care. The Pros Of The Study Were Low Cost Requirement, Less Time Consumption And Automated Data Collection. The Cons Of The Study Were Researcher Bias And Lack Of Time Frame.

The Data On Patients Age, Gender And Diagnosis Of Chronic Pulpitis Collected From The 1003 Case Records Were Entered. Collected Data Was Subjected To Statistical Analysis Using Spss Version 20.0. Frequency Distribution Was Performed To Find The Prevalence Of Chronic Pulpitis Among Different Genders. Chi-Square Association Was Done To Find The Association Between Chronic Pulpitis And Different Genders.

## 3. Results And Discussion

This Study Included 1003 Patients Who Were Diagnosed With Chronic Pulpitis And The Case Records Were Reviewed. The Aim Of The Study Was To Record The Prevalence Of Chronic Pulpitis Among Dental Patients Attending A Dental Hospital. The Data Were Enumerated Through The Analysis Of The Data Records At A Dental Hospital. Irreversible Pulpitis Is Considered As A Clinical Challenge To Clinical Practitioners In The Terms Of Treatment Option As It Requires A Lot Of Practice And Thorough Knowledge.

In Figure 1, There Was No Significant Difference Presented Between Prevalence Of Chronic Pulpitis Among Males And Females As  $P=0.055$  ( $P>0.05$ ). Males Reported Approximately 54% While Females Were Reported With 46% Incidence. In The Context Of Our Investigation, We Found That The Frequency Of Chronic Pulpitis Was Slightly Higher In Males Compared To Females. As Reported By Kiranmayi *Et Al.*, The Pulpal Inflammation Described In Men And Women Was In An Unequal Frequency, In Which Females Were More Affected. Female Patients Recorded The Highest In Both Reversible And Irreversible Pulpitis And The Most Occurrence Inflammation Of The Pulp Were Reversible Pulpitis (Tang, Wu And Smales, 2010). There Is No Specific Gender Predilection Determined For Either Reversible And Irreversible Pulpitis. Differences In Prevalence Among Genders Were Due To Smaller Sample Size Used Within The Present Study.

In Addition To Prevalence Of The Disease Based On Gender, This Study Also Recorded The Association Of Chronic Pulpitis With Tooth Number. Statistically Significant Difference Found As  $P=0.015$  ( $P<0.05$ ). Most Of The Patients Were Diagnosed With Chronic Pulpitis Preponderance On First Molars For Each Quadrant Followed By

Second Molars. First Molars Highest Recorded Were 36, With A Percentage Of Almost 20% Followed By 46 (18%) And 26 (14%). There Was No Significant Difference Between All The Second Molars Prevalence With An Average Of Nearly 10% As Shown In Figure 2. Incidence Of Chronic Pulpitis May Affect Any Tooth. As Prevalence Of Dental Caries Is Increasing Globally, Oral Health Has Become A Major Concern To Everyone. Based On Tooth Predilection, Present Study Recorded Higher Prevalence In The First And Second Molars. As Reported By Asgary Et Al. 2013, Treatment Done For Irreversible Pulpitis Highest Performed In First Molars, Followed By Second And Third Molars (Asgary *Et Al.*, 2013). First Molars Are Highly Associated With Dental Caries That Can Lead To Pulpal Inflammation. This Is Due To Its Morphological And Functional Characteristics, As Well As The First Permanent Tooth To Erupt In The Oral Cavity (Mcdonald And Sheiham, 1992).

In This Study, The Prevalence Of Chronic Pulpitis Were Also Evaluated Based On The Different Age Groups. Statistically Significant Difference Found As  $P=0.024$  ( $P<0.05$ ). This Was Performed In Sequence To Correlate The Universality Of Chronic Pulpitis Among Different Age Populations As Well. It Is Displayed In Figure 3 That The Index Age Group Recorded The Highest Prevalence Of Chronic Pulpitis Were 26-35 Years Old Individuals With Frequency Of Almost 35%. It Was Also Observed That The Index Age Group Of 18-25 And 36-45 Years Patients Recorded With A Similar Percentage 22.6% And 22.4% Respectively. Older Age Groups That Included 50 Years Old Patients And Above Recorded Derivation In The Incidence Of Disease. Oral Hygiene Practices Are Necessary In Every Age Group. Thus, Maintaining Good Oral Health Care Is Needed To Avoid Any Dental Problems. Based On The Age Group, 26-35 Years Old Patients Recorded As The Most Affected Individuals With 34.4%, Followed By 18-25 (22.6%) And 36-45 (22.4%). As Reported By Kiranmayi Et Al., The Younger Age Group 18-30 Years Individuals Illustrated Greater Frequency Than Other Age Groups (Tang, Wu And Smales, 2010). Khan Et Al. 2018 Reported That The 20-40 Age Group Recorded The Highest Occurrence Of Dental Caries (Khan, Jain And Shrivastav, 2008). Occurrence Of Dental Caries Is Highly Associated With Dietary Habit. This Is Associated With Age Groups That Are Practicing Different Dietary Habits That Might Influence The Incidence Of Dental Caries.

Occurrence Of Dental Caries Is Regarded As A Prolonged Process, In Which The Lesions Take Over Years Slowly. As We All Are Aware, Pulpal Inflammation Due To Carious Lesions Happened As A Deprived Immunologic Response To Bacterial Antigens. However, Not All These Conditions Are Associated With Permanent Pulpal Damage. Inflammation Can Be Resolved And Healing Of The Pulp Can Be Initiated When Preventive Measures Such As Earliest Elimination Of The Carious Lesion Before Reaching The Pulp Is Carried Out (Klaassen, Veerkamp And Hoogstraten, 2008). Our Institution Is Passionate About High Quality Evidence Based Research And Has Excelled In Various Fields (Pc, Marimuthu And Devadoss, 2018; Ramesh *Et Al.*, 2018; Vijayashree Priyadharsini, Smiline Girija And Paramasivam, 2018; Ezhilarasan, Apoorva And Ashok Vardhan, 2019; Ramadurai *Et Al.*, 2019; Sridharan *Et Al.*, 2019; Vijayashree Priyadharsini, 2019; Chandrasekar *Et Al.*, 2020; Mathew *Et Al.*, 2020; R *Et Al.*, 2020; Samuel, 2021).

The Present Study Showed Several Limitations That Can Cause Unreliable Results. Demographic Features, Small Sample Size And Population As Well As Unequal Distribution Of Participants Among Genders Lead To Bias In Data Analysis. Increasing Sample Size Can Also Contribute To Great Changes In The Result.

#### **4. Conclusion**

Within The Limitations Of The Present Study, It Was Found That The Prevalence Of Chronic Pulpitis Among Different Genders In The Chennai Population Seemed To Be Slightly Higher In Males Than Females. Considering The Occurrence Of Irreversible Pulpitis In Both Genders Especially In Young Generations, Understanding The Factors That Can Lead To Progression Of Dental Caries Should Be Acknowledged. Thus, Preventive Measures As Well As Restorative Management At The Earliest Should Be Practised To Avoid The Pulpal Damage.

#### **5. Author Contribution**

All Authors Have Equal Contribution In Bringing Out This Research Work

## 6. Acknowledgement

Nil

## 7. Conflict Of Interest

Nil

## 8. References

1. Ali, S. G. And Mulay, S. (2015) 'Pulpitis: A Review', *International Of Dental And Medical Science (Iosr-Jdms)*, 14, Pp. 92–97.
2. Asgary, S. *Et Al.* (2013) 'One-Year Results Of Vital Pulp Therapy In Permanent Molars With Irreversible Pulpitis: An Ongoing Multicenter, Randomized, Non-Inferiority Clinical Trial', *Clinical Oral Investigations*, 17(2), Pp. 431–439.
3. Bender, I. B. (2000) 'Reversible And Irreversible Painful Pulpitides: Diagnosis And Treatment', *Australian Endodontic Journal: The Journal Of The Australian Society Of Endodontology Inc*, 26(1), Pp. 10–14.
4. Chandrasekar, R. *Et Al.* (2020) 'Development And Validation Of A Formula For Objective Assessment Of Cervical Vertebral Bone Age', *Progress In Orthodontics*, 21(1), P. 38.
5. Choudhari, S. And Thenmozhi, M. S. (2016) 'Occurrence And Importance Of Posterior Condylar Foramen', *Laterality*, 8, Pp. 11–43.
6. Dabuleanu, M. (2013) 'Pulpitis (Reversible/Irreversible)', *Journal*, 79, P. D90.
7. Damyanova, D. M., Angelova, S. And Andreeva-Borisova, R. (2018) 'Estimation Of Pulpitis Prevalence In Primary Dentition', *Dental Research And Oral Health*. Doi: 10.26502/Droh.005.
8. Dhinesh, B. *Et Al.* (2016) 'An Assessment On Performance, Emission And Combustion Characteristics Of Single Cylinder Diesel Engine Powered By Cymbopogon Flexuosus Biofuel', *Energy Conversion & Management*, 117, Pp. 466–474.
9. Edelstein, B. L. (2002) 'Disparities In Oral Health And Access To Care: Findings Of National Surveys', *Ambulatory Pediatrics*, Pp. 141–147. Doi: 10.1367/1539-4409(2002)002<0141:Diohaa>2.0.Co;2.
10. Ezhilarasan, D., Apoorva, V. S. And Ashok Vardhan, N. (2019) 'Syzygium Cumini Extract Induced Reactive Oxygen Species-Mediated Apoptosis In Human Oral Squamous Carcinoma Cells', *Journal Of Oral Pathology & Medicine: Official Publication Of The International Association Of Oral Pathologists And The American Academy Of Oral Pathology*, 48(2), Pp. 115–121.
11. Felicita, A. S. And Sumathi Felicita, A. (2018) 'Orthodontic Extrusion Of Ellis Class Viii Fracture Of Maxillary Lateral Incisor – The Sling Shot Method', *The Saudi Dental Journal*, Pp. 265–269. Doi: 10.1016/J.Sdentj.2018.05.001.
12. Gerritsen, A. E. *Et Al.* (2010) 'Tooth Loss And Oral Health-Related Quality Of Life: A Systematic Review And Meta-Analysis', *Health And Quality Of Life Outcomes*, 8, P. 126.
13. Gopikrishna, V. And Suresh Chandra, B. (2014) 'Grossman's Endodontic Practice'. Lww. Available At: [https://www.academia.edu/download/57005053/Grossmans-Endodontic-Practice-12thedition-Preview\\_2.Pdf](https://www.academia.edu/download/57005053/Grossmans-Endodontic-Practice-12thedition-Preview_2.Pdf).
14. Govindaraju, L. And Gurunathan, D. (2017) 'Effectiveness Of Chewable Tooth Brush In Children-A Prospective Clinical Study', *Journal Of Clinical And Diagnostic Research: Jcdr*, 11(3), P. Zc31.
15. Gurunathan, D. And Shanmugaavel, A. K. (2016) 'Dental Neglect Among Children In Chennai', *Journal Of The Indian Society Of Pedodontics And Preventive Dentistry*, 34(4), P. 364.
16. Hafeez, N. And Others (2016) 'Accessory Foramen In The Middle Cranial Fossa', *Research Journal Of Pharmacy And Technology*, 9(11), P. 1880.
17. Khan, A. A., Jain, S. K. And Shrivastav, A. (2008) 'Prevalence Of Dental Caries Among The Population Of Gwalior (India) In Relation Of Different Associated Factors', *European Journal Of Dentistry*, 2(2), Pp. 81–85.
18. Kiranmayi, G., Anumala, L. And Kirubakaran, R. (No Date) [No Title]. Available At: [https://www.researchgate.net/profile/Kiranmayi\\_Govula/publication/338229885\\_Estimation\\_Of\\_The\\_Prvalence\\_Of\\_Pulpitis\\_In\\_The\\_Tertiary\\_Care\\_Hospital\\_In\\_Nellore\\_District-A\\_Cross\\_Sectional\\_Study/links/5e09aeb9299bf10bc382cd15/Estimation-Of-The-Prevalence-Of-Pulpitis-In-The-Tertiary-Care-Hospital-In-Nellore-District-A-Cross-Sectional-Study.Pdf](https://www.researchgate.net/profile/Kiranmayi_Govula/publication/338229885_Estimation_Of_The_Prvalence_Of_Pulpitis_In_The_Tertiary_Care_Hospital_In_Nellore_District-A_Cross_Sectional_Study/links/5e09aeb9299bf10bc382cd15/Estimation-Of-The-Prevalence-Of-Pulpitis-In-The-Tertiary-Care-Hospital-In-Nellore-District-A-Cross-Sectional-Study.Pdf) (Accessed: 3 June 2020).

19. Klaassen, M. A., Veerkamp, J. S. J. And Hoogstraten, J. (2008) 'Changes In Children's Dental Fear: A Longitudinal Study', *European Archives Of Paediatric Dentistry*, Pp. 29–35. Doi: 10.1007/Bf03262653.
20. Krishnan, R. P. *Et Al.* (2018) 'Surgical Specimen Handover From Operation Theater To Laboratory: A Survey', *Annals Of Maxillofacial Surgery*, 8(2), Pp. 234–238.
21. Kumar, S. And Rahman, R. (2017) 'Knowledge, Awareness, And Practices Regarding Biomedical Waste Management Among Undergraduate Dental Students', *Asian Journal Of Pharmaceutical And Clinical Research*, 10(8), P. 341.
22. Levine, M. (1988) 'Root-Canal Therapy: A Means Of Treating Oral Pain And Infection', *Canadian Family Physician Medecin De Famille Canadien*, 34, Pp. 1357–1365.
23. Mathew, M. G. *Et Al.* (2020) 'Evaluation Of Adhesion Of Streptococcus Mutans, Plaque Accumulation On Zirconia And Stainless Steel Crowns, And Surrounding Gingival Inflammation In Primary Molars: Randomized Controlled Trial', *Clinical Oral Investigations*, Pp. 1–6.
24. Mcdonald, S. P. And Sheiham, A. (1992) 'The Distribution Of Caries On Different Tooth Surfaces At Varying Levels Of Caries--A Compilation Of Data From 18 Previous Studies', *Community Dental Health*, 9(1), Pp. 39–48.
25. Noor, S. S. S. E., S Syed Shihaab And Pradeep (2016) 'Chlorhexidine: Its Properties And Effects', *Research Journal Of Pharmacy And Technology*, P. 1755. Doi: 10.5958/0974-360x.2016.00353.X.
26. Palati, S. *Et Al.* (2020) 'Knowledge, Attitude And Practice Survey On The Perspective Of Oral Lesions And Dental Health In Geriatric Patients Residing In Old Age Homes', *Indian Journal Of Dental Research*, P. 22. Doi: 10.4103/Ijdr.Ijdr\_195\_18.
27. Paramasivam, A., Vijayashree Priyadharsini, J. And Raghunandhakumar, S. (2020) 'N6-Adenosine Methylation (M6a): A Promising New Molecular Target In Hypertension And Cardiovascular Diseases', *Hypertension Research: Official Journal Of The Japanese Society Of Hypertension*, 43(2), Pp. 153–154.
28. Pc, J., Marimuthu, T. And Devadoss, P. (2018) 'Prevalence And Measurement Of Anterior Loop Of The Mandibular Canal Using Cbct: A Cross Sectional Study', *Clinical Implant Dentistry And Related Research*. Available At: <https://Europepmc.Org/Article/Med/29624863>.
29. Ramadurai, N. *Et Al.* (2019) 'Effectiveness Of 2% Articaine As An Anesthetic Agent In Children: Randomized Controlled Trial', *Clinical Oral Investigations*, 23(9), Pp. 3543–3550.
30. Ramanathan, S. And Solete, P. (2015) 'Cone-Beam Computed Tomography Evaluation Of Root Canal Preparation Using Various Rotary Instruments: An In Vitro Study', *The Journal Of Contemporary Dental Practice*, Pp. 869–872. Doi: 10.5005/Jp-Journals-10024-1773.
31. Ramesh, A. *Et Al.* (2018) 'Comparative Estimation Of Sulfiredoxin Levels Between Chronic Periodontitis And Healthy Patients - A Case-Control Study', *Journal Of Periodontology*, 89(10), Pp. 1241–1248.
32. R, H. *Et Al.* (2020) 'Cyp2 C9 Polymorphism Among Patients With Oral Squamous Cell Carcinoma And Its Role In Altering The Metabolism Of Benzo[A]Pyrene', *Oral Surgery, Oral Medicine, Oral Pathology And Oral Radiology*, Pp. 306–312. Doi: 10.1016/J.Oooo.2020.06.021.
33. Samuel, S. R. (2021) 'Can 5-Year-Olds Sensibly Self-Report The Impact Of Developmental Enamel Defects On Their Quality Of Life?', *International Journal Of Paediatric Dentistry / The British Paedodontic Society [And] The International Association Of Dentistry For Children*, 31(2), Pp. 285–286.
34. Saravanan, M. *Et Al.* (2018) 'Synthesis Of Silver Nanoparticles From Phenerochaete Chrysosporium (Mtcc-787) And Their Antibacterial Activity Against Human Pathogenic Bacteria', *Microbial Pathogenesis*, 117, Pp. 68–72.
35. Sedgley, C. (2012) 'Seltzer And Bender's Dental Pulp', *Journal Of Endodontics*, 38(5), P. 708.
36. Sheiham, A. (2006) 'Dental Caries Affects Body Weight, Growth And Quality Of Life In Pre-School Children', *British Dental Journal*, 201(10), Pp. 625–626.
37. Siddique, R. *Et Al.* (2019) 'Qualitative And Quantitative Analysis Of Precipitate Formation Following Interaction Of Chlorhexidine With Sodium Hypochlorite, Neem, And Tulsi', *Journal Of Conservative Dentistry: Jcd*, 22(1), Pp. 40–47.
38. Sneha, S. And Others (2016) 'Knowledge And Awareness Regarding Antibiotic Prophylaxis For Infective Endocarditis Among Undergraduate Dental Students', *Asian Journal Of Pharmaceutical And Clinical Research*, Pp. 154–159.
39. Somasundaram, S. *Et Al.* (2015) 'Fluoride Content Of Bottled Drinking Water In Chennai, Tamilnadu', *Journal Of Clinical And Diagnostic Research: Jcdr*, 9(10), P. Zc32.
40. Sridharan, G. *Et Al.* (2019) 'Evaluation Of Salivary Metabolomics In Oral Leukoplakia And Oral Squamous Cell Carcinoma', *Journal Of Oral Pathology & Medicine: Official Publication Of The*

*International Association Of Oral Pathologists And The American Academy Of Oral Pathology*, 48(4), Pp. 299–306.

41. Tang, W., Wu, Y. And Smales, R. J. (2010) ‘Identifying And Reducing Risks For Potential Fractures In Endodontically Treated Teeth’, *Journal Of Endodontia*, 36(4), Pp. 609–617.
42. Vijayakumar Jain, S. *Et Al.* (2019) ‘Evaluation Of Three-Dimensional Changes In Pharyngeal Airway Following Isolated Lefort One Osteotomy For The Correction Of Vertical Maxillary Excess: A Prospective Study’, *Journal Of Maxillofacial And Oral Surgery*, 18(1), Pp. 139–146.
43. Vijayashree Priyadharsini, J. (2019) ‘In Silico Validation Of The Non-Antibiotic Drugs Acetaminophen And Ibuprofen As Antibacterial Agents Against Red Complex Pathogens’, *Journal Of Periodontology*, 90(12), Pp. 1441–1448.
44. Vijayashree Priyadharsini, J., Smiline Girija, A. S. And Paramasivam, A. (2018) ‘In Silico Analysis Of Virulence Genes In An Emerging Dental Pathogen *A. Baumannii* And Related Species’, *Archives Of Oral Biology*, 94, Pp. 93–98.
45. Wu, F. *Et Al.* (2019) ‘Biologically Synthesized Green Gold Nanoparticles From Siberian Ginseng Induce Growth-Inhibitory Effect On Melanoma Cells (B16)’, *Artificial Cells, Nanomedicine, And Biotechnology*, 47(1), Pp. 3297–3305.

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	465	46.4	46.4	46.4
	Male	538	53.6	53.6	100.0
	Total	1003	100.0	100.0	

Table 1: Prevalence Of Chronic Pulpitis Among Different Genders

## Prevalence Of Chronic Pulpitis Among Different Genders In Chennai Population

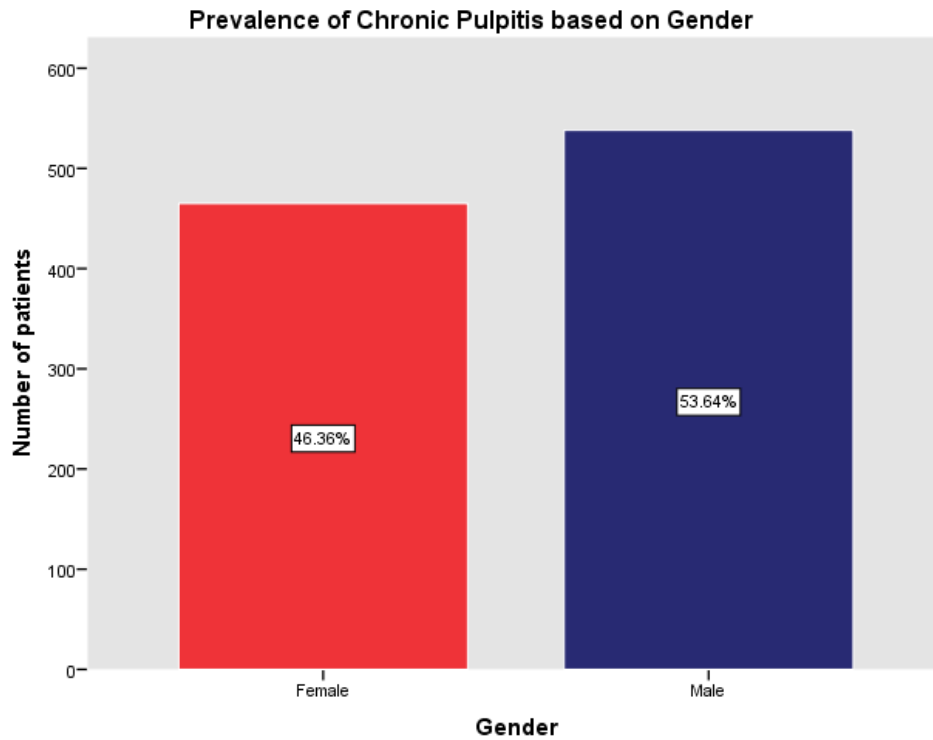


Figure 1 Shows Frequency Distribution Of Chronic Pulpitis Among Patients. X Axis Represents The Genders And Y Axis Shows Number Of Patients. There Were More Male Patients (Blue) (53.6%) Reported With Chronic Pulpitis As Compared To Females (Red) (46.4%). Chi-Square Test Was Done And Was Found To Be Statistically Not Significant [Chi-Square Value-;  $P=0.055$  ( $P>0.05$ )].

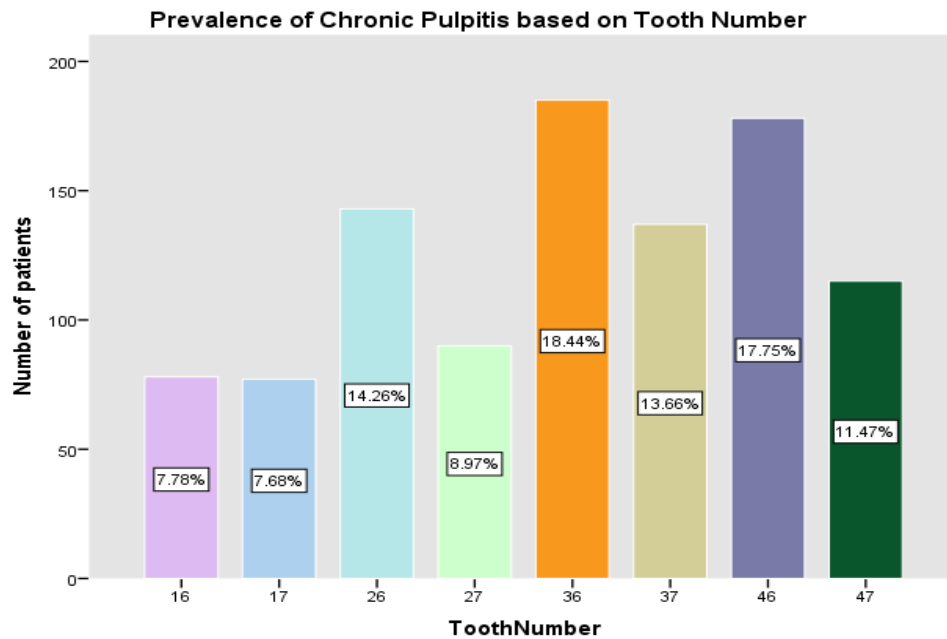




Figure 2 Shows The Frequency Distribution Of Chronic Pulpitis Among Different Teeth. The X Axis Shows Different Teeth Numbers. Y Axis Represents The Count Of Patients For Each Tooth. 36 Shows The Highest Percentage With 18.4%. Chi-Square Test Was Done And Was Found To Be Statistically Significant [Chi-Square Value-; P=0.015 (P<0.05)]. Tooth Number 36 (Orange) Had More Chronic Pulpitis Compared To Other Teeth.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	227	22.6	22.6	22.6
	26-35	345	34.4	34.4	57.0
	36-45	225	22.4	22.4	79.5
	46-55	138	13.8	13.8	93.2
	56-65	52	5.2	5.2	98.4
	66-75	10	1.0	1.0	99.4
	76-85	1	.1	.1	99.5
	76-86	1	.1	.1	99.6
	76-87	1	.1	.1	99.7
	76-88	1	.1	.1	99.8
	76-89	1	.1	.1	99.9
	76-90	1	.1	.1	100.0
	Total		1003	100.0	100.0

Prevalence Of Chronic Pulpitis Among Different Genders In Chennai Population

Table 2: Frequency Distribution Of Chronic Pulpitis Based On Different Age Groups

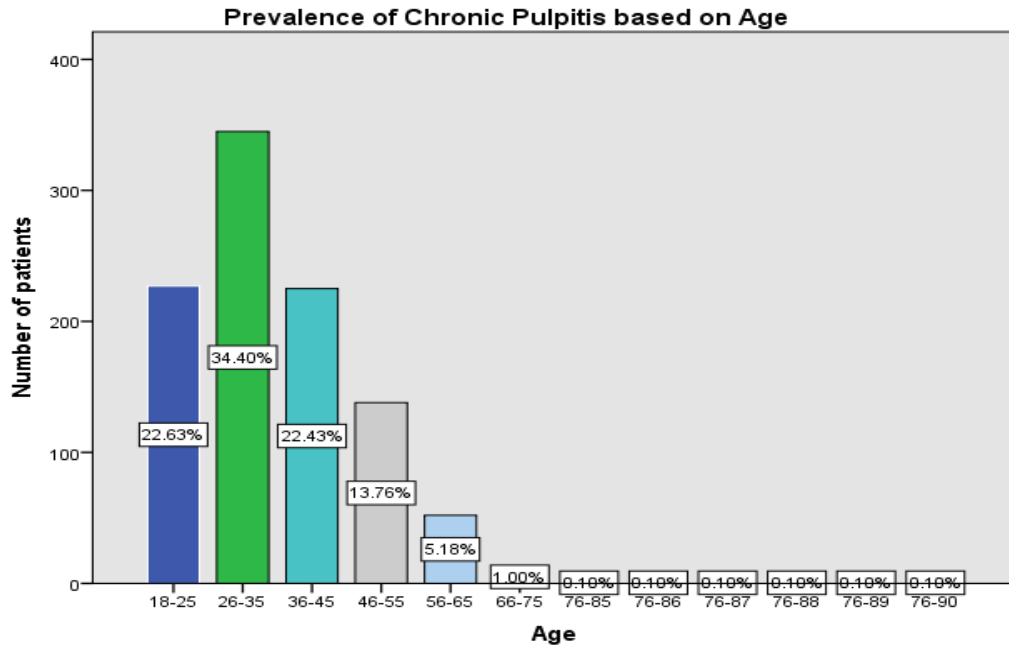


Figure 3 Shows The Frequency Distribution Of Chronic Pulpitis Among Different Age Groups. The X Axis Shows The Different Age Groups. Y Axis Represents The Count Of Patients In Each Age Group. The 26-35 Age Group Shows The Highest Percentage With 34.4%. Chi-Square Test Was Done And Was Found To Be Statistically Significant [Chi-Square Value-; P=0.024 (P<0.05)]. The 26-35 Age Group(Green) Had More Chronic Pulpitis In Comparison To Other Age Groups.