

## “Rooted In Diversity : Exploring Ethnic and Racial Variations in Endodontic Practice”

### RACE

Race is a categorization of humans based on shared physical or social qualities into groups generally viewed as distinct within a given society

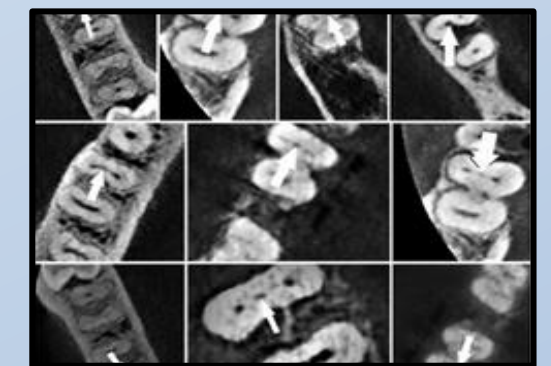
#### Indian ethnicities

Northern India ( Indo- Aryan)  
Southern India ( Dravidian)  
Northeastern Tibeto-Burman  
and Mongoloid)  
Central and tribal regions  
( Adivasi/Indigenous)

| Name of researcher   | Tooth                     | Variations                                                  | Gender |
|----------------------|---------------------------|-------------------------------------------------------------|--------|
| AJINKYA PAWAR (2017) | Mandibular second molar   | c shaped canals with fused roots                            | —      |
| VELMURUGAN (2008)    | mandibular first premolar | 72% type 1 vertucci classification                          | —      |
| SHISHIR SINGH (2020) | mandibular molars         | 2 roots 3 canals with intercanal communication              | —      |
| JOJO KOTTOOR (2013)  | mandibular premolars      | 80% type 1 vertucci classification<br>less than 1% C shaped | ✓      |

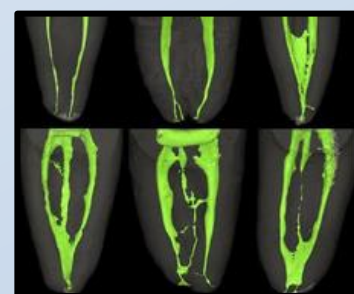
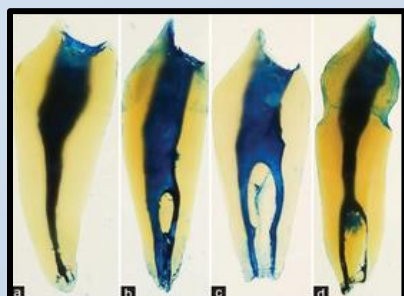
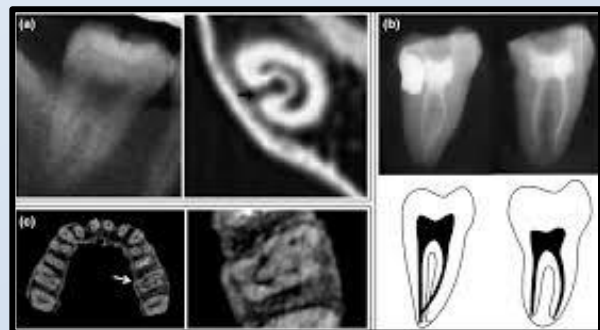


MIDDLE DISTAL CANAL



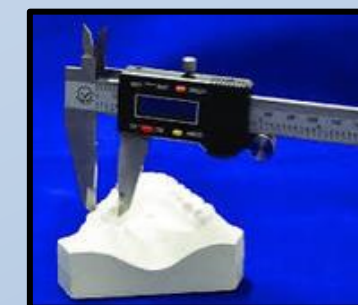
MIDDLE MESIAL CANAL IN  
MANDIBULAR MOLARS

#### “C” SHAPED CANALS

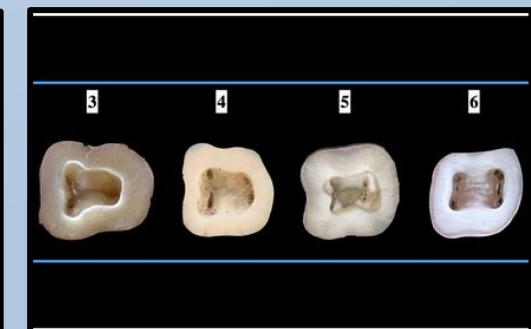
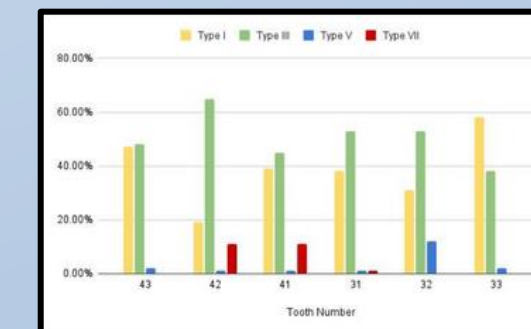


#### Methodologies to evaluate this variations??

- Cadaver teeth or extracted teeth – caliper and internal structures by staining
- 2D imaging-IOPA
- 3D Imaging-CBCT and Micro CT



#### CANAL ANATOMY OF ANTERIOR TEETH



#### Clinical Significance

- locating and cleaning all canals
- Instrumentation and irrigation

• Impact on treatment outcome

### ETHNICITY

An ethnicity or ethnic group is a group of people who identify with each other on the basis of perceived shared attributes. Those attributes can include a people of a common language, culture, common sets of ancestry, traditions, society, religion, history, or social