



BACKGROUND

According to a study by Pameijer in 1969, dental contacts during the course of mandibular eccentric movements may vary in number and location. According to this, different occlusal patterns have been described by different authors in laterality and protrusion movement.

OBJECTIVES

With this work we wanted to study the occlusal pattern on the working side while performing laterality and protrusion movements; and to relate if the people who used braces had interferences during protrusion movement.

MATERIAL & METHODS

Sample: 40 people (20 male and 20 female)

Age: 14 to 44 years (21 years average)

Then found the occlusal contacts of each student in contactant movements of left handedness, right laterality and protrusion. These contacts were observed by using articulating paper and recorded on an individual record. In the examination, were asked to individuals who initially cerrassem teeth in maximum intercuspation and subsequently realizassem the different movements to the top position at the top.

EXCLUSION CRITERIA

- Anterior or posterior open bite;
- Anodontia or tooth loss, excluding third molars and premolars (as a result of orthodontic treatment);
- Anterior or posterior crossbite (unilateral or bilateral);
- Orthodontic treatment in progress;
- Presence of dentures
- Metal inlays.

The Chi Square test was used to determine whether the prior use of braces was statistically significant for the presence of posterior interferences during protrusion movement.

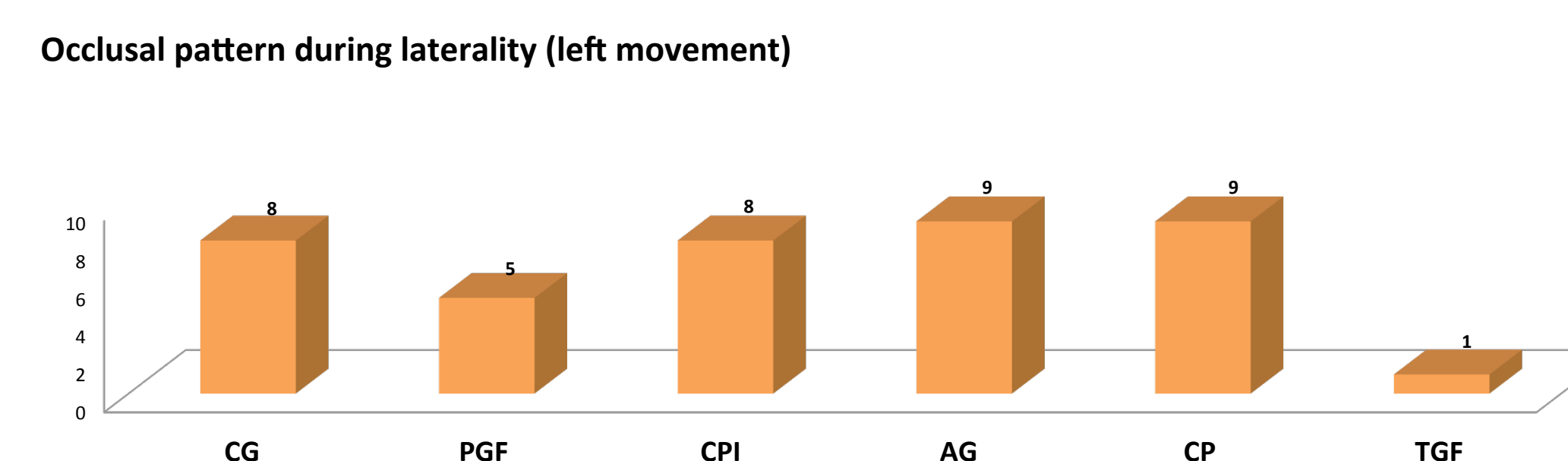


Fig. 1 – We used articulation paper to analyze dental contacts

OCCLUSAL PATTERNS	
Canine guidance (CG)	Characterized by the contact of canine.
Anterior guidance (AG)	Characterized by the contact of the anterior teeth.
Canine Protected Occlusal Pattern (CP)	Characterized by canine guidance and adjacent teeth contact during deocclusion.
Canine Protected Occlusal Pattern with working Interferences (CPI)	Characterized by canine guidance and adjacent teeth contact during deocclusion with working interferences.
Posterior Group Function (PGF)	Characterized by the contact of the canine, premolars and molars.
Total Group Function (TGF)	Characterized by the contact of all the teeth

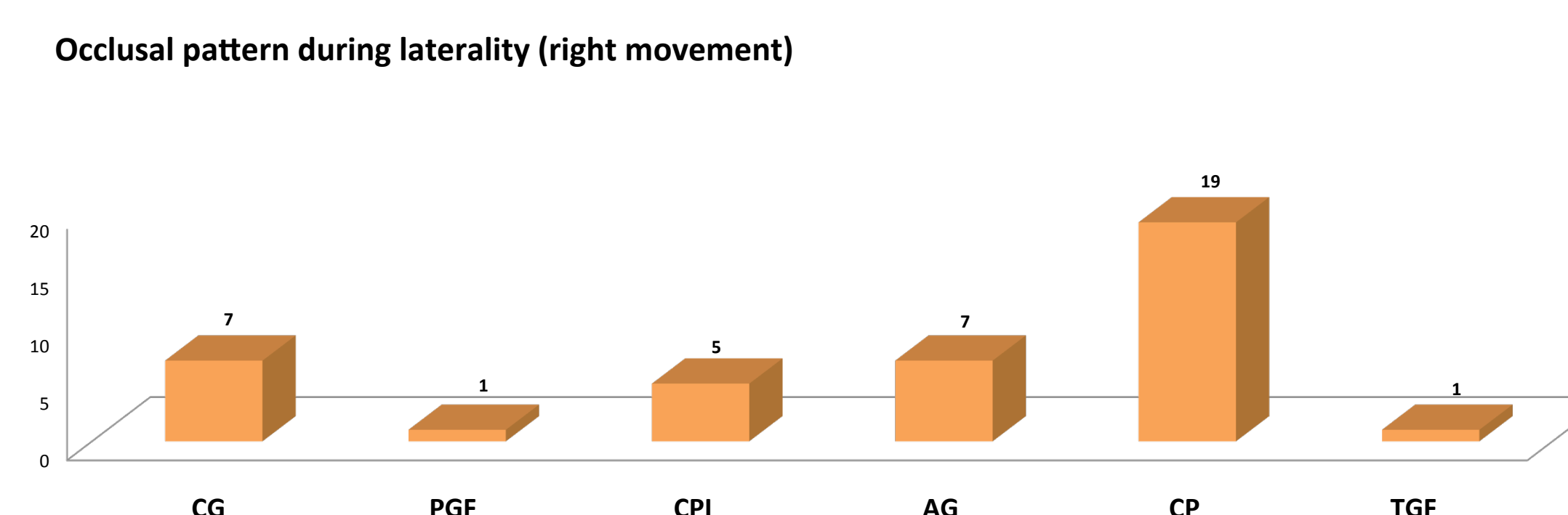
RESULTS AND SUMMARY

Laterality – Left movement



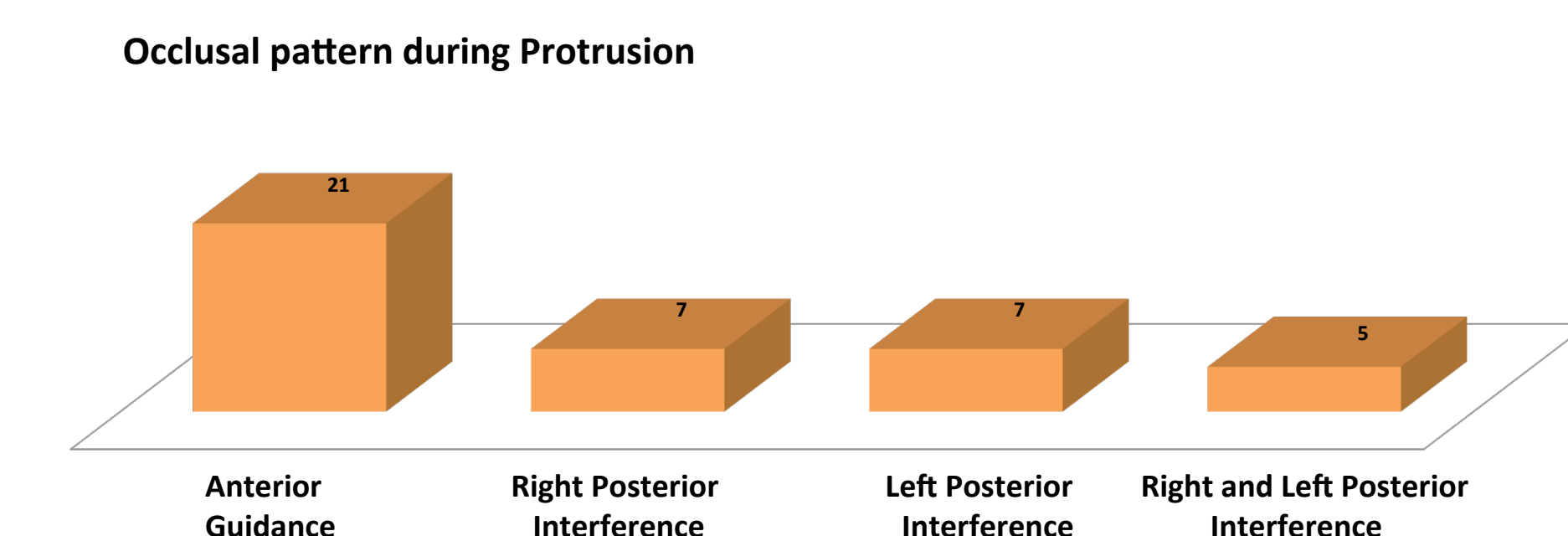
- Canine protected occlusal pattern and anterior guidance are prevalent.
- It seems to be a lot of working side interferences during left laterality.
- Total group function is a rare occlusal pattern (only 1 case observed).
- The teeth 22, 23 and 24 (F.D.I.) have a high frequency of contact.

Laterality – Right movement



- Canine protected occlusal pattern is the most prevalent.
- There was some working side interferences during the right laterality movement.
- Total group function is a rare occlusal pattern.
- The teeth 11, 13 and 14 have high contact frequency.

Protrusão



- The anterior guidance is the most common occlusal pattern.
- Posterior interferences occur with the same frequency on both sides.
- The central incisors have very similar contact frequencies.
- Posterior interferences occur mostly in the 2nd quadrant.

- There were posterior interferences during protrusion both in individuals who have used braces and those who didn't
- Individuals who did not use braces have a lower prevalence of posterior interferences during protrusion.
- The posterior interference occur with the same frequency as the right and left side.
- Since $p > 0.05$ we can say that there is no statistical significance between the use of orthodontic treatment and the existence of posterior interferences during protrusion.

CONCLUSION

- Canine protected occlusal pattern and anterior guidance seems to be the most prevalent occlusal patterns during laterality movement.
- We observed working side interferences, preferably at 16, 17, 26 and 27 (F.D.I.).
- Total group function proved to be a rare dental pattern on laterality movement.
- Teeth 13 and 23 (F.D.I.) are those with higher frequency of tooth contact during laterality.
- In protrusion, the anterior guidance is the most common occlusal pattern.
- Individuals who didn't use braces have a lower prevalence of posterior interference during protrusion. There was no statistically significant correlation of between the use of braces and the existence of posterior interferences during protrusion.

REFERENCES

1. Pameijer JHN, Glickman I, Roeber FW: Intraoral occlusal telemetry III. Tooth contacts in chewing, swallowing and bruxism. *J Periodontol* 1969;40:253-258.
2. D'Amico: Functional occlusion of the natural teeth of man. *J Prosthet Dent* 1961;11:899-915
3. Okeson JP. Fundamentos de oclusão e Tratamento das Desordens Temporomandibulares. (6ª ed. bras.). São Paulo, 2008.
4. Ajbean, J.; Korbendau, J. M. Occlusion: aspectos clínicos incidaciones terapêuticas. Trad. Por Roberto Porter. Buenos Aires: *Panamericana*, 1980. P. 58-59
5. Beyron H. Occlusal relations and mastication in Australian Aborigines. *Acta Odontol Scand* 1964; 22:597-678
6. Rodrigues CHR, Matos HAR, Costa JBZ. Disfunção crânio-mandibular: guia canino ou função de grupo? *Sitientibus*, Feira de Santana, n. 30, p. 173-186, jan./jun. 2004