IPRについて

歯の歯の間に隙間を作るために、隣在する歯を部分的に削ることをIPR(ディスキング)といいます。

IPRとは略語で、正しくは正式名称は「inter-proximal reduction」と言います。 inter-proximal=隣接の reduction=削減 で隙間を作るということです。 患者様にお伝えする際には、「歯と歯の間に隙間を作る」とか「歯と歯の間にヤスリがけをする」とか「歯を少し小さくする」ということが多く、矯正相談で耳にしたことがあるかもしれません。

・IPR (ディスキング) の目的は 予後は良いのか

目的は重複しますが、歯を小さくすることでスペースを作ることで歯を並べるスペースを作っていきます。歯並びがガタガタになっていることを「不正咬合」と言いますが、成り立ちの原因として

歯の大きさ>歯を並べるスペース

がそもそもの原因となります。

様々な歯並びの方がいらっしゃいますが、特定の歯並びだと歯が大きいなどの差は 見られず、性別や民族間においても差は見られません。

Intermaxillary tooth-size discrepancies in different sexes, malocclusion groups, and ethnicities

Rene S. Johe, a Todd Steinhart, b Nina Sado, Barbara Greenberg, d and Shuying Jing Newark, NJ

Introduction: To achieve proper occlusion, practitioners must consider tooth-size discrepancies between the jaws. Previous studies have shown considerable differences in tooth sizes between sexes, ethnicities, and malocclusion categories. The aim of this study was to compare mean tooth-size statistics between these groups, specifically determining a maxillary or a mandibular excess tooth-size discrepancy in clinically relevant cases. Methods: This study involved 306 subjects of varying sex, ethnicity, and malocclusion category, randomly chosen from the treatment population of the orthodontic clinic at the New Jersey Dental School, University of Medicine and Dentistry of New Jersey. The prevalence of discrepancies (±1 and 2 SD) between all groups and within groups was measured. Results: Fifty percent of the subjects had anterior Bolton tooth-size discrepancies, and 41% had overall Bolton tooth-size discrepancies of ±1 SD. Tooth-size ratios compared with analysis of variance (ANOVA) showed no significant correlation between and among the sexes, ethnicities, and malocclusion groups. Compared with Caucasian and Hispanic patients, African-American patients had significantly greater odds of having a clinically significant (±2 SD) anterior ratio. When we compared the numbers of subjects above or below the clinically significant ratio, there was equal distribution of maxillary and mandibular excess in Class II and Class III patients. Caucasian and African-American patients had equal distributions of maxillary and mandibular excess, whereas Hispanic patients displayed a higher bias toward mandibular excess. Conclusions: Tooth-size discrepancies are common in orthodontic populations and are evenly distributed among sex, ethnicity, and malocclusion category, with some exceptions. (Am J Orthod Dentofacial Orthop 2010;138:599-607)

歯列不正や性差民族間で歯の大きさに差がないという 論文です

IPRについて

もともと歯並びが良い方の特徴として歯が横幅が小さくて厚みがあるという特徴が あることが論文で発表されています。

Crown Dimensions and Mandibular Incisor Alignment

SHELDON PECK, D.D.S., M.Sc.D.* Harvey Peck, D.D.S., M.Sc.D.*

The four mandibular incisors are the teeth most prone to positional irregularity. Studies^{1,5} have shown this, and no clinical orthodontist will deny it.

There are new potential factors in

no clinical orthodontist will deny it.

There are many potential factors in the etiology of lower anterior crowding. Tooth size variation is one of them.

Although a relationship between crown dimensions and the presence or absence of tooth irregularity is generally recognized, the exact nature of this association has, as yet, eluded investigators. It is the nature of this recognization has, as yet, eluded investigators is the property of the

- Approximal contact present among the mandibular incisors.
 The absence of overlapping in the mandibular incisors.
 Minimal rotational deviation from the ideal arch form in the mandibular incisors.

of tooth irregularity is generally recognized, the exact nature of this association has, as yet, eluded investigators, it is the nature of this association that is the subject of our study. In particular, this study examines and compares crown dimensions, mesiodistal and faciolingual, of the mandibular incisors and face and the question, "Do naturally well-aligned mandibular incisors possess distinctive dimensional characteristics?"

MATERIALS AND METHODS

The mandibular incisors of two groups of white female young adults from the northeastern region of the country were studied. One group was designated as the "group with perfect mandibular incisor alignment," while the other was designated as the "control population group." The members of both samples were all within the same age range (17-27 years) and of European anacetry.

The group with perfect mandibular incisor dispunction of the perfectly incisor alignment consisted of forty-five subjects selected from a dental survey of several hundred. Selections were succeeded to the survey of several hundred. Selections were succeeded to the succeeding the survey of several hundred. Selections were difficult to measure. Instead, as the color to retain for the reference that the same age range (17-27 years) and of European anacetry.

The group with perfect mandibular incisor alignment, while the same age range (17-27 years) and of European anacetry.

The group with perfect mandibular incisor tooth were measured directly in the mouth. A Helios dealer with 0.05 millimeter (mm) each of the calipre tips were specially pointed to the calipre tips were specially pointed the distribution of the selection promover the device. The calipre the selection promover the device the reduction of the ideal incisor are the ideal incisor. The control production group control

148

歯並びが良い方は歯の幅が狭く、前 後的に厚みがあるという論文です

上記のことからも、大きさとスペースの不調和を是正し、歯並びの良い方の形態に 近づけることは理にかなった行動と言えます。

歯と歯が接触する部分(コンタクト部分)を削るわけですから、そこから虫 歯や歯周病のリスクが上がるのではないか、という懸念もあるかと思いま す。

IPR(ディスキング)を行った患者様と、IPR(ディスキング)を行わなかっ た患者様を矯正治療後10年経過を見た論文があります。結果としては、歯周 病、虫歯の原因にはならなかったという結果になっております。さらに、 IPR(ディスキング)を行った患者様の方が矯正治療後の後戻りが少なかっ たという報告がされています。

コンタクト部分が点で当たっていた部分が削ることで面で当たることで摩擦 を生み戻りにくかったのではないかと推察されます。

Dental health assessed more than 10 years after interproximal enamel reduction of mandibular anterior teeth

Björn U. Zachrisson,^a Lise Nyøygaard,^b and Karim Mobarak^c Oslo, Norway

Introduction: We investigated whether interdental enamel reduction using fine diamond disks with air cooling, followed by polishing, leads to iatrogenic damage or reduced interradicular distances. **Methods:** Our subjects were 61 consecutive patients who had received mesiodistal enamel reduction of all 6 mandibular anterior teeth more than 10 years previously. Dental caries, bleeding on probing, probing depths, and gingival recessions were assessed with standard techniques. Incisor irregularities and tooth width/thickness ratios were measured on models, and the patients were asked about any increased tooth sensitivity. The reference group comprised 16 students. **Results:** No new caries lesions were detected. Three mature adults had some minor labial gingival recessions. There was no evidence of root pathology. The distance between the roots of the mandibular incisors was statistically significantly greater in the patients who had received stripping than in those who had not; 59 of 61 patients reported no increased sensitivity to temperature variations. The overall irregularity index at follow-up was only 0.67 (SD, 0.64). **Conclusions:** Interdental enamel reduction according to this protocol did not result in iatrogenic damage. Dental caries, gingival problems, or alveolar bone loss did not increase, and the distances between the roots of the teeth in the mandibular anterior region were not reduced. The overall incisor irregularity at the follow-up examination was small. (Am J Orthod Dentofacial Orthop 2007;131:162-9)

IPRを行ったのちに10年経過を追った論文です。IPRが原因の虫歯や歯周病などが引き起こされていないという報告がされています。

上記のように、歯を削って歯のサイズを適正化することは、虫歯や歯周病の リスク要因にならずに後戻りが少ない処置です。

IPR(ディスキング)はしっかりと治療計画を立てて適切なタイミングで処置を行う必要があります。ですので、初回から削ることもあれば治療途中で削る、追加修正の際に削るなど、いつ行うから正しいというものは存在しません。

IPR(ディスキングを)タイミングなどにつきましては、診断時や治療中に必ずご説明いたします。

「**歯を削ります**」といきなり言われても「**えぇっ?!**」という反応がほとんどだと思います。治療計画をしっかり立てて根拠をもとに適切なタイミングで介入できれば、インビザライン矯正治療をよりスムーズに、また矯正治療後も安定したお口の中を保つことができます。IPR(ディスキング)をご希望

IPRについて

されない患者様におかれましても、行わない治療計画を立案いたしますので、お気軽にお申し付けください。