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Pembuatan *Inclined Bite Plane Catlan's Appliance* Rahang Bawah Pada Kasus *Crossbite Anterior*.

XV + 46 Halaman + 32 Gambar + 2 Tabel + 5 Lampiran

RINGKASAN

Crossbite anterior merupakan suatu kondisi maloklusi di mana gigi anterior rahang atas berada di belakang gigi anterior rahang bawah ketika rahang dalam posisi oklusi sentrik. Kondisi ini dapat memengaruhi estetika wajah, fungsi otot-otot orofasial, serta pertumbuhan rahang. Penulis mendapatkan kasus tentang pembuatan *inclined bite plane catlan's appliance* rahang bawah dengan kasus *crossbite anterior*.

Tujuan penulisan laporan tugas akhir ini adalah untuk mengetahui desain alat, mekanisme kerja, hasil kemajuan perawatan, serta kendala dan cara mengatasinya selama proses pembuatan *inclined bite plane catlan's appliance* pada rahang bawah anterior,

Prosedur pembuatan dimulai dari persiapan model kerja, *transfer* desain, penanaman model kerja pada okludator. Selanjutnya pembuatan pola malam, *flasking*, *boiling out*, *packing*, *curing*, *deflasking*, *finishing*, dan *polishing*.

Hasil, alat *inclined bite plane catlan's appliance* sesuai desain, *fitting* pada model kerja cekat, permukaan alat halus dan mengkilap. Inseri ke pasien, didapatkan *free way space* ± 4 mm. Simpulan, desain *inclined bite plane catlan's appliance* pada kasus ini adalah bidang miring dengan sudut 45° pada bagian labial dan lingual menutupi 2-3 mm di bawah *servical*. Mekanisme kerjanya mengarahkan pergerakan gigi *incisivus* atas ke posisi labial melalui kontak *incisal* pada bidang miring 45° . Kemajuan selama perawatan, gigi *incisive* mulai menunjukkan pergeseran ke labial. Kendala, terdapat porus pada bagian lingual. Saran, penambalan dengan *resin clear acrylic* menggunakan *liquid self cured acrylic*.

Kata Kunci : *Crossbite, Inclined bite plane catlan's*

Referensi : 33 (1996–2024)

**TANJUNGKARANG HEALTH POLYTECHNIC
DEPARTMENT OF DENTAL TECHNOLOGY**

Final Report, June 2025

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Fabrication Of *Inclined Bite Plane Catlan's Appliance* of Lower Jaw In Case Of Anterior Crossbite

XVI + 46 pages + 32 figures + 2 tables + 5 appendices

ABSTRACT

An anterior *crossbite* is a malocclusion in which the maxillary anterior teeth are positioned behind the mandibular anterior teeth when the jaw is in centric occlusion. This condition can affect facial aesthetic, orofacial, muscle function, and jaw growth. The author presented a case involving the creation of an *inclined bite plane catlan's appliance* for the mandible in a case of anterior *crossbite*.

The purpose of writing this final project report is to find out the design of the appliance, the working mechanism, the result, of the treatment progress, as well as the obstacle and how to overcome them during the manufacturing process of the *inclined bite plane catlan's appliance* on the anterior lower jaw.

The manufacturing process begins with preparing the working model, transferring the design, and embedding the working model in the occluder. Next, the wax pattern is created, followed by *flasking, boiling, packing, curing, deflasking, finishing* and *polishing*.

The results showed that the *inclined bite plane catlan's appliance* was in accordance with the design, *fitting* on the fixed working model, and the surface of the appliance was smooth and shiny. Insertion into the patient resulted in a *free way space* of ± 4 mm. In conclusion, the design of the *inclined bite plane catlan's appliance* in this case is an *inclined bite plane* with a 45° angle on the labial and lingual parts covering 2-3 mm below the *servical*. Its working mechanism directs the movement of the upper incisors to the labial position through *incisal* contact on the 45° *inclined plane*. Progress during treatment, the incisors began to show a labial shift. Constraints include pores on the lingual part. Suggestions include filling with *clear acrylic resin* using *liquid self-cured acrylic*.

Keywords : *Crossbite, Inclined Bite Plane catlan's*

References : 33 (1996-2024)