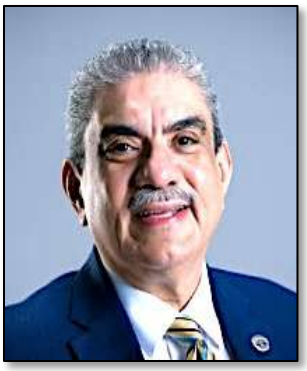
MANAGEMENT OF A CONSTANT AND PAINFUL DYSKENESIA OF THE MANDIBLE

A case presentation



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ABSTRACT
The Masticatory or occlusal system, is an orthopedic system in nature; complex, adaptable and efficient and in charge of speech, respiration, mastication, sleep and swallow throughout our lives, all on which life depends. The system has 3 complex anatomical components; the 2 temporomandibular joints (TMJ), the neuromuscular and the interdental relationship and its supporting tissues that can be damaged in similar ways to those of the rest of the human body. The intention of this case presentation is to describe the successful diagnosis and conservative management only in Phase I[1] of a case of a 71 years old patient with a painful mandibular dyskinesia, dental attrition, osteoarthritis (OA) of the temporomandibular joints (TMJ), myofacial pain and bruxism[2].
Keyword; osteoarthritis, myofacial pain, maladaptive interdental relationship, bruxism, dyskinesia, dental attrition.

INTRODUCTION
This a case of a 71 years old male patient (pt) that came to my office in April 14, 2015 after seeing my yellow page's ad and for another opinion of his problem.
The ***occlusal analysis***[3] revealed;

1. *Chief Complaint;* "severe pain".
2. *Medical History;*
   a. Medications;
      CoAprovel 300mg 12.5 mg. per day for hypertension
      Norvasc 5mg. also for hypertension
      Cilostal 100mg. for varicose ulcer
      Albothyl and Dexketoprofen drops and Cataflam 50mg., for the "dental pain".
   b. Weight: known, 210 lbs.
      c. Blood pressure; unknown. Taken in the office: 164/93 right arm and indicated that he had taken his medications.[4, 5]. He was informed of the situation and of the relationship between his medical condition, TMD and sleep disorders.
      3. The *sleep apnea questionnaire and the Epworth* scale in Spanish[6, 7](fig. 1), indicated; loud snoring, waking up without breath, size L neck, daytime sleepiness, non reparative sleep, morning headaches, wakes up 3 times or more with pain, 6 hours sleep time, memory loss and hypertension.

4. Dental history; extractions, endodontics, operative and crowns. Was aware of worn teeth (fig. 2).

5. *Articular-muscular history;* History of one year with present pain and painful opening condition in the left face and mouth (movie 01). Refers that he had a similar condition 5 years ago that was self-limiting and was never diagnosed*. It is repetitive, almost constant and daily electrical and stabbing severe pain*, worsened during eating, speaking and on touch. He has to stop using the mouth to lower it. Indicated earaches, tinnitus and clog ears. Indicated a history of several antero-posterior traumas in the face (he was an international professional wrestler) during his lifetime and mood changes that went from angst, angriness and sadness. He also indicated that was always moving his jaw or touching his teeth and could feel it sometime during sleep and joint sounds for many years. He mentioned that *his regular dentist had ruled out any dental or TMJ cause and referred him to a neurosurgeon that diagnosed trigeminal neuralgia indicating surgery.*
6. *Muscular examination;* Palpation indicated pain and slight swelling of bilateral masseter and temporal muscles (fig. 2). His neck was tender at rotation.
7. *Articular examination;* Both TMJ were painful on palpation and crepitation was heard during opening and lateral with the Doppler™.
8. *Range of motion examination:* Painful opening and closing in both TMJ, with a 50 mm inter incisal (fig. 2).
9. *Posture examination;* Deviated omicron line and anterior posture of head (figs. 4 & 5).
10. *Interdental examination;* Worn incisal (about 2 mm) and occlusal (about .5 mm) surfaces, slight abfractions, some missing teeth, missing anterior guidances and posterior crowding (figs. 2, 6 & 7.).
11. *Intraoral examination;* Retruded, elevated and slightly festooned tongue (fig. 2).
12. *Images examination;* Asymmetrical condyles and horizontal loss of crestal bone (fig. 8).
The ***diagnosis*** [2] were;
1. Primary OA[8] of both TMJ.
2. Myofacial Pain.
3. Rule out Bruxism[9]
4. Maladaptive Occlusion[10, 11, 12,13]
5. Hypertension

The ***Phase I treatment*** started immediately at the case presentation appointment in April 16, 2015, because of the constant and severe pain and as manner of confirming the articular/muscular/parafunctional nature of the dysfunction, with a prescription of naproxen 500 mg every 12 hours, acetaminophen 500mg every 8 hours and carisoprodol 250mg every 8 hours for 7 days or until a splint could be delivered. I omited the Cataflam. The patient could not return to start treatment until April 30, 2015, but was called in a week and reported that he felt and slept much better with the medication.
1. An initial session of 30 minutes with TENS by Bioresearch™, being able to speak without pain after only few minutes under.
2. Construction of a mandibular full coverage neuromuscular appliance (fig. 9) with anterior guidance and even contacts obtained with a Parkell II™ ribbon [14, 15, 16,].
3. Use of the appliance 24 hours a day, removal only to eat and brushing and follow up appointments every 2 weeks for at least 2 months.
The pt complied and reported constant reduction of all signs and symptoms and improved sleep by May 28, 2015 (movie 02). Unfortunately, he cancelled 2 of the 4 appointments, delaying his last adjustment appointment to July 8, 2015. He was fully asymptomatic and without the dyskinesia that day (movies 03), thus obtaining the goals of Phase I of pain control, bruxism cessation and restoration of mandibular function. Post op photos were taken that day also (figs. 10, 11, 12, 13, 14 & 15). He was informed of the need of Phase II treatment to stabilize the interdental relationship and of the need of a sleep test to manage a possible sleep disorder, but he refused any further appointments stating that he was painless and motionless and that he had to take care of his other diseases.
He was instructed of the dangers of wearing occlusal appliances without follow up, the need of sleep disorders management and its relation with his medical conditions and of the possibility of relapses. My assistant called him April 17, 2018 and stated that he was wearing the appliance to sleep and that he was starting to feel discomfort in the mandible. She warned her of possible complications ask him to set an appointment for follow up but he refused stating again that he had other diseases to take care and that he would call when needed.

SUMMARY

The Temporomandibular Disorders[2] can be painful, incapacitating, move or wear teeth, alter the sleep, the mood, the blood pressure and the general health and wellbeing. Their sign and symptoms can be perplexing and it diagnosis can be difficult or resemble other orofacial pain conditions[17, 18]. The alternatives of Phase I relieve pain and restore muscular and articular function. The Phase II alternatives, rehabilitate the occlusal table.

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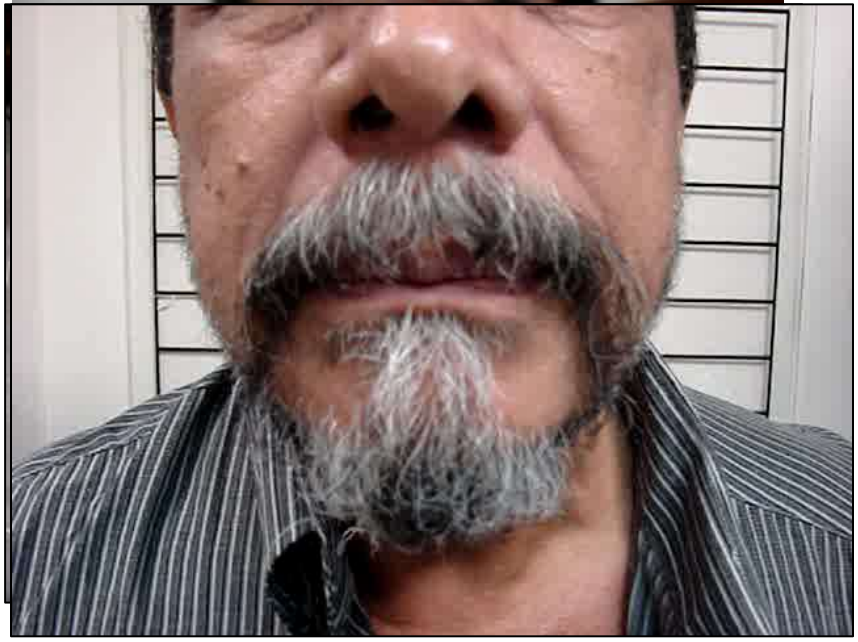
MOVIES (sorry, the sound is in Spanish)

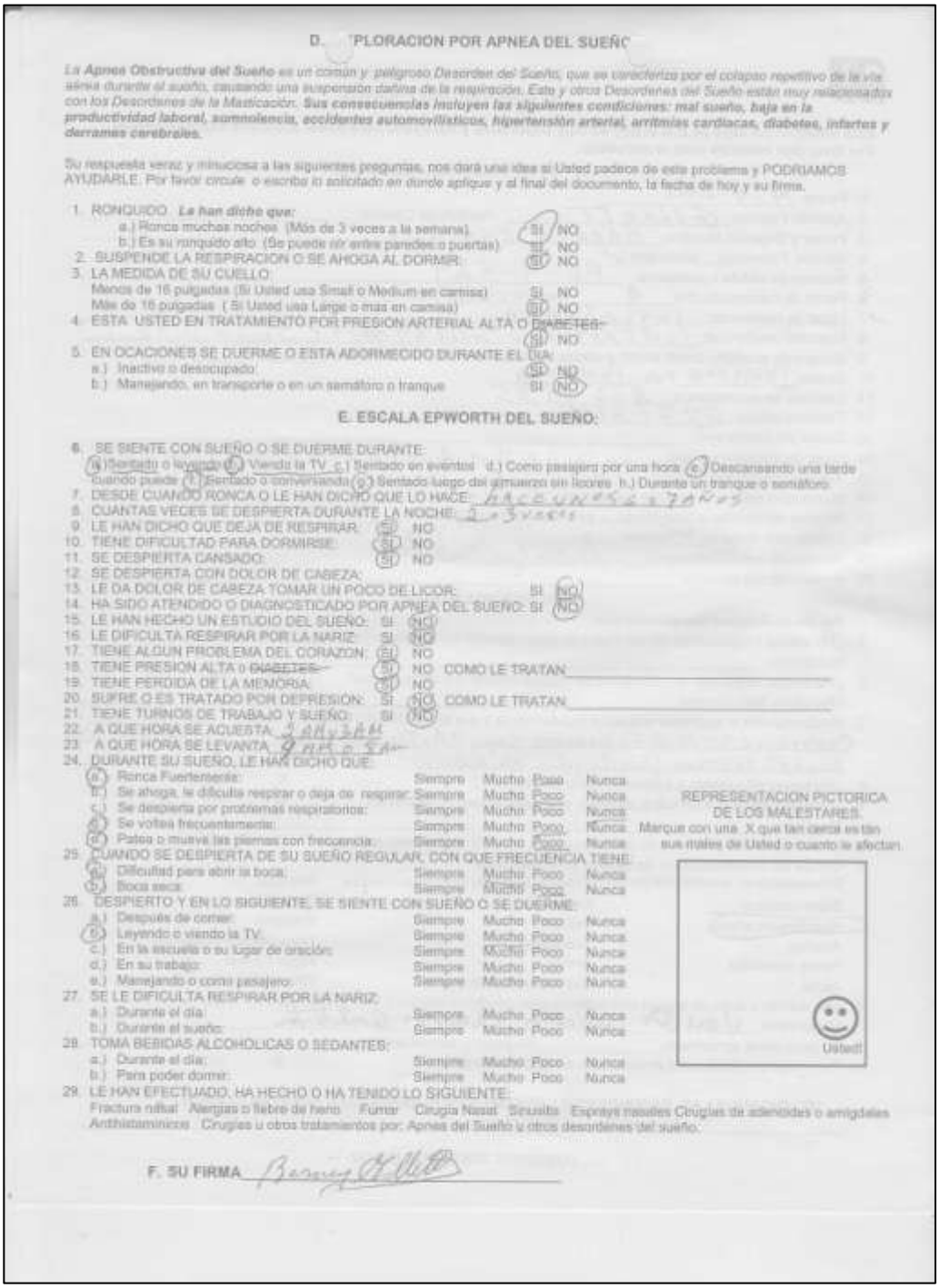


Movie 01. Painful involuntary movements of the jaw.

Movie 02. Fully functional after one month

Movie 03. Opening, closing and counting 1 to 10 with the appliance

FIGURES



D. EXPLORACION POR APNEA DEL SUEÑO

La Apnea Obstructiva del Sueño es un común y peligroso Desorden del Sueño, que se caracteriza por el colapso repetitivo de la vía aérea durante el sueño, causando una suspensión dañina de la respiración. Este y otros Desordenes del Sueño están muy relacionados con los Desordenes de la Masticación. ***Sus consecuencias incluyen las siguientes condiciones: mal sueño, baja en la productividad laboral, somnolencia, accidentes automovilisticos, hipertensión arterial, arritmias cardiacas, diabetes, infartes y derrames cerebrales.***

Su respuesta veraz y minuciosa a las siguientes preguntas, nos dará una idea si Usted padece de este problema y PODRIAMOS AYUDARLE. Por favor circule o escriba lo solicitado en donde aplique y al final del documento, la fecha de hoy y su firma.

1. RONQUIDO. ***Le han dicho que:***
   a.) Ronca muchas noches (Más de 3 veces a la semana). (SI) NO
   b.) Es su ronquido alto (Se puede oir entre paredes o puertas) (SI) NO
2. SUSPENDE LA RESPIRACION O SE AHOGA AL DORMIR: (SI) NO
3. LA MEDIDA DE SU CUELLO:
   Menos de 16 pulgadas (Si Usted usa Small o Medium en camisa) SI NO
   Más de 16 pulgadas (Si Usted usa Large o mas en camisa) (SI) NO
4. ESTA USTED EN TRATAMIENTO POR PRESION ARTERIAL ALTA O ~~DIABETES~~:
   (SI) NO
5. EN OCACIONES SE DUERME O ESTA ADORMECIDO DURANTE EL DIA:
   a.) Inactivo o descupado (SI) NO
   b.) Manejando, en transporte o en un semáforo o tranque SI (NO)

E. ESCALA EPWORTH DEL SUEÑO:

6. SE SIENTE CON SUEÑO O SE DUERME DURANTE:
   (a.) Sentado o leyendo (b.) Viendo la TV c.) Sentado en eventos d.) Como pasajero por una hora (e.) Descansando una tarde cuando puede (f.) Sentado o conversando (g.) Sentado luego del almuerzo sin licores h.) Durante un tranque o semáforo
7. DESDE CUANDO RONCA O LE HAN DICHO QUE LO HACE: hace unos 2 a 3 años
8. CUANTAS VECES SE DESPIERTA DURANTE LA NOCHE: 2 a 3 veces
9. LE HAN DICHO QUE DEJA DE RESPIRAR: (SI) NO
10. TIENE DIFICULTAD PARA DORMIRSE: (SI) NO
11. SE DESPIERTA CANSADO: (SI) NO
12. SE DESPIERTA CON DOLOR DE CABEZA:
13. LE DA DOLOR DE CABEZA TOMAR UN POCO DE LICOR: SI (NO)
14. HA SIDO ATENDIDO O DIAGNOSTICADO POR APNEA DEL SUEÑO: SI (NO)
15. LE HAN HECHO UN ESTUDIO DEL SUEÑO: SI (NO)
16. LE DIFICULTA RESPIRAR POR LA NARIZ: SI (NO)
17. TIENE ALGUN PROBLEMA DEL CORAZON: (SI) NO
18. TIENE PRESION ALTA o ~~DIABETES~~: (SI) NO COMO LE TRATAN:_____
19. TIENE PERDIDA DE LA MEMORIA: (SI) NO
20. SUFRE O ES TRATADO POR DEPRESION: SI (NO) COMO LE TRATAN:_____
21. TIENE TURNOS DE TRABAJO Y SUEÑO: SI (NO)
22. A QUE HORA SE ACUESTA: 10 pm y 3 AM
23. A QUE HORA SE LEVANTA: 9 AM o 5 AM
24. DURANTE SU SUEÑO, LE HAN DICHO QUE:
    (a.) Ronca Fuertemente: Siempre Mucho Poco Nunca
    b.) Se ahoga, le dificulta respirar o deja de respirar: Siempre Mucho Poco Nunca
    c.) Se despierta por problemas respiratorios: Siempre Mucho Poco Nunca
    (d.) Se voltea frecuentemente: Siempre Mucho Poco Nunca
    (e.) Patea o mueve las piernas con frecuencia: Siempre Mucho Poco Nunca

REPRESENTACION PICTORICA DE LOS MALESTARES.
Marque con una X que tan cerca es tan sus males de Usted o cuanto le afectan.

25. CUANDO SE DESPIERTA DE SU SUEÑO REGULAR, CON QUE FRECUENCIA TIENE:
    (a.) Dificultad para abrir la boca: Siempre Mucho Poco Nunca
    b.) Boca seca: Siempre Mucho Poco Nunca
26. DESPIERTO Y EN LO SIGUIENTE, SE SIENTE CON SUEÑO O SE DUERME:
    a.) Después de comer: Siempre Mucho Poco Nunca
    (b.) Leyendo o viendo la TV: Siempre Mucho Poco Nunca
    c.) En la escuela o su lugar de oración: Siempre Mucho Poco Nunca
    d.) En su trabajo: Siempre Mucho Poco Nunca
    e.) Manejando o como pasajero: Siempre Mucho Poco Nunca
27. SE LE DIFICULTA RESPIRAR POR LA NARIZ:
    a.) Durante el día: Siempre Mucho Poco Nunca
    b.) Durante el sueño: Siempre Mucho Poco Nunca
28. TOMA BEBIDAS ALCOHOLICAS O SEDANTES:
    a.) Durante el día: Siempre Mucho Poco Nunca
    b.) Para poder dormir: Siempre Mucho Poco Nunca
29. LE HAN EFECTUADO, HA HECHO O HA TENIDO LO SIGUIENTE:
    Fractura nâsal Alergias o fiebre de heno Fumar Cirugia Nasal Sinusitis Espiras nasales Cirugias de adenoides o amigdalas Antihistaminicos Crugias u otros tratamientos por: Apnea del Sueño u otros desordenes del sueño:

Usted!

F. SU FIRMA _____

Figure 1.

Figure 2.

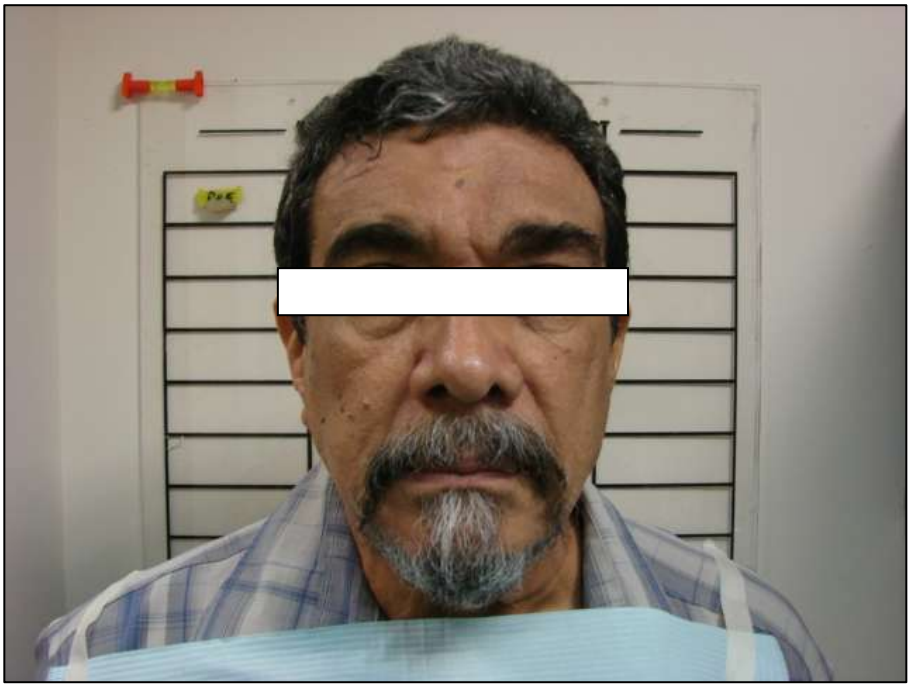


Figure 3.

Figure 4.

Figure 5.

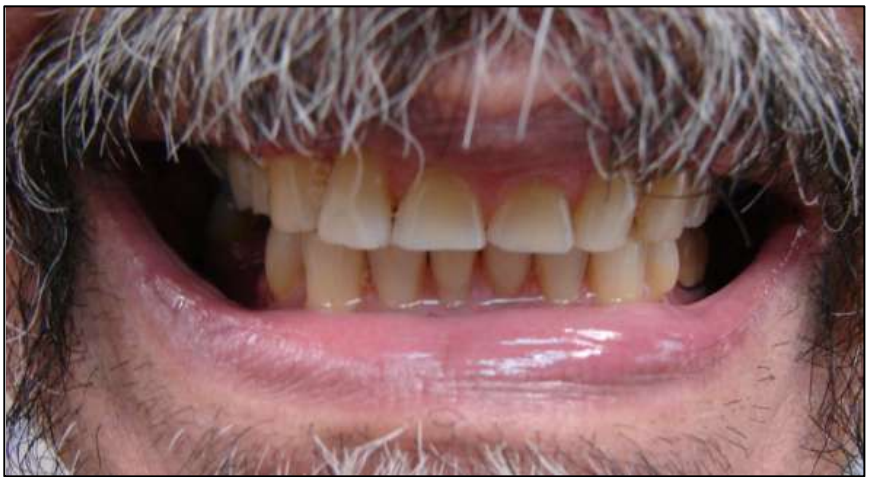
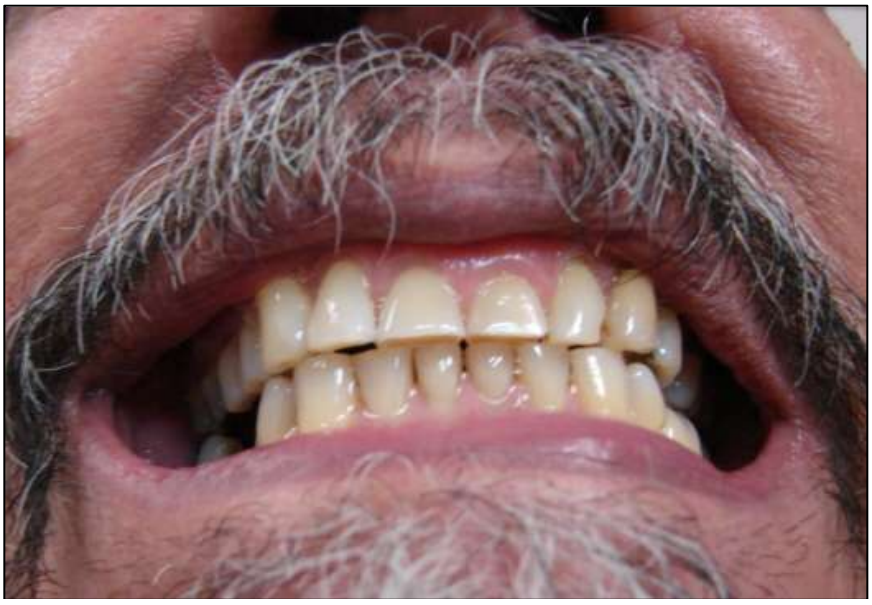


Figure 6.



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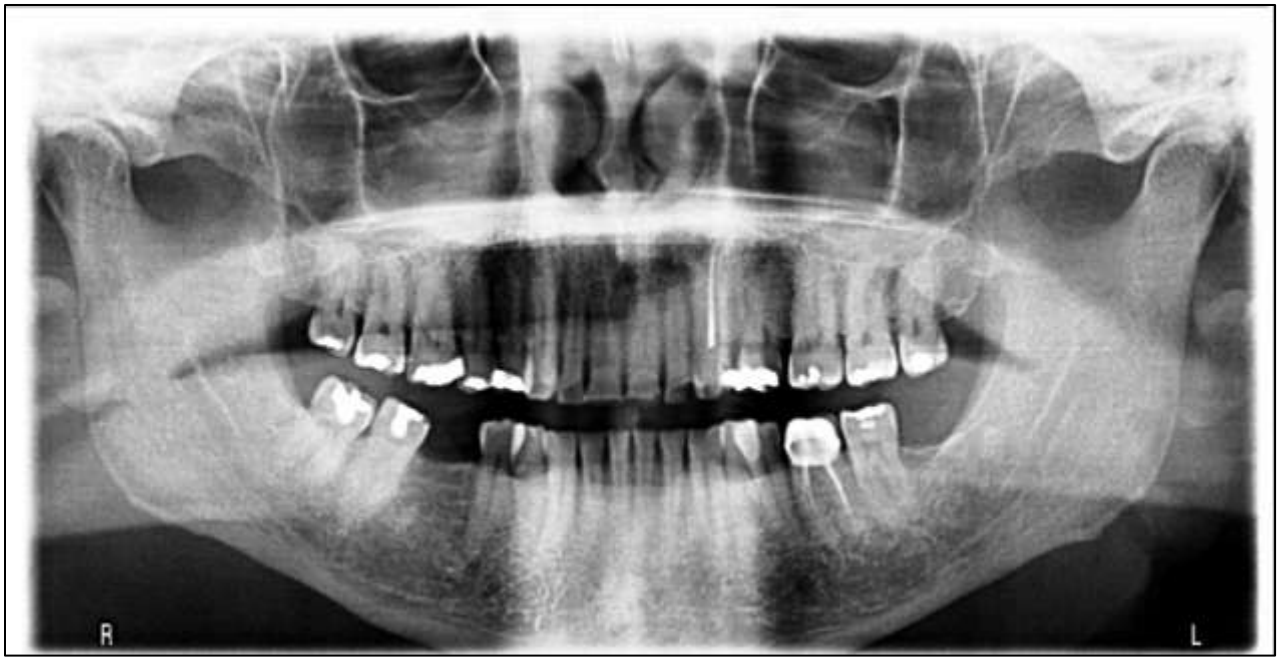


Figure 8.

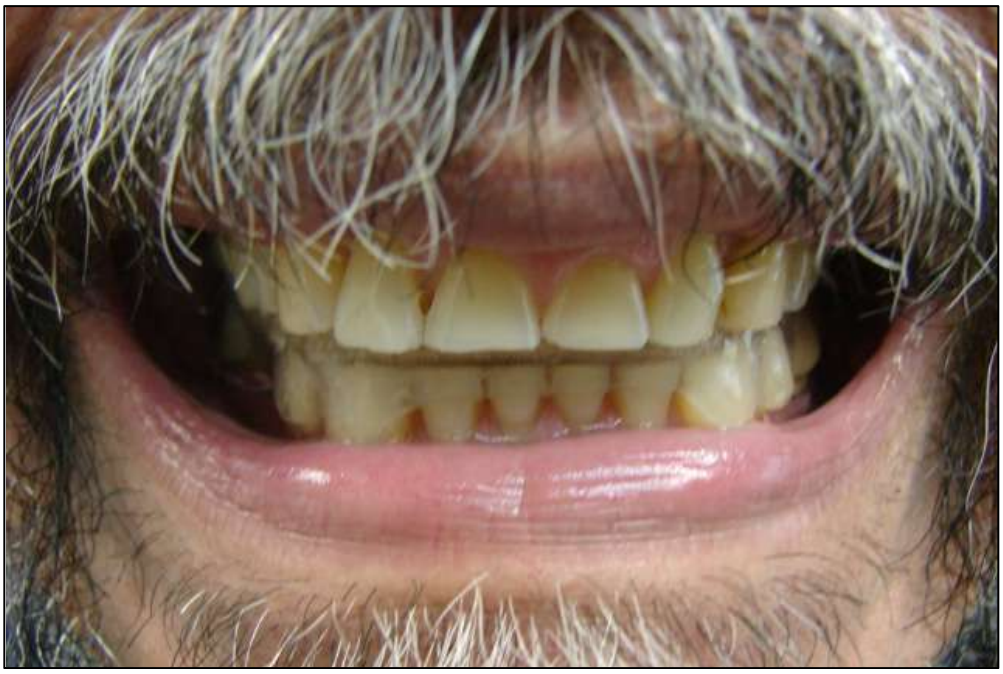


Figure 9.

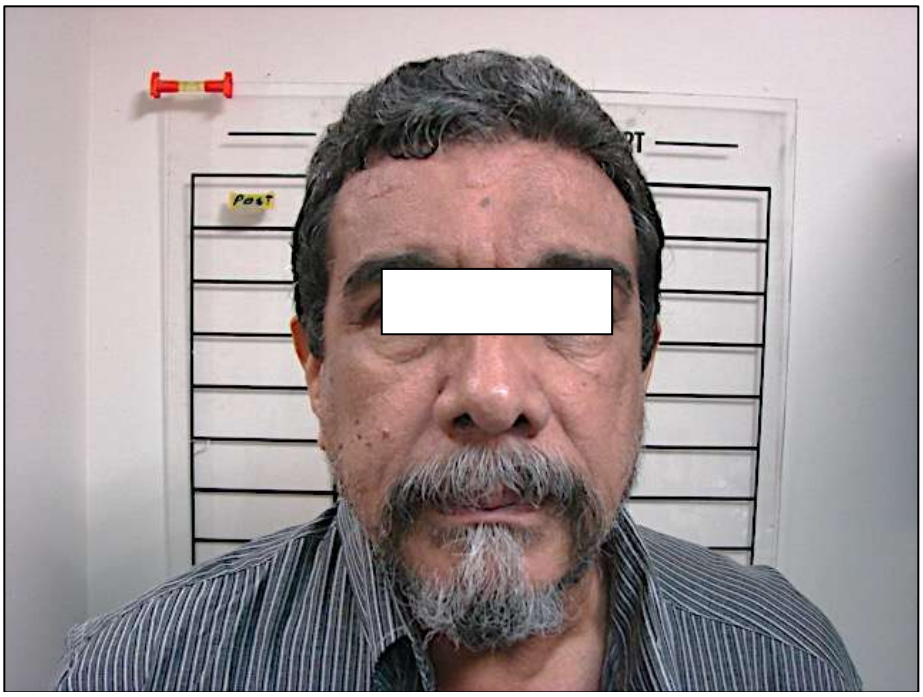
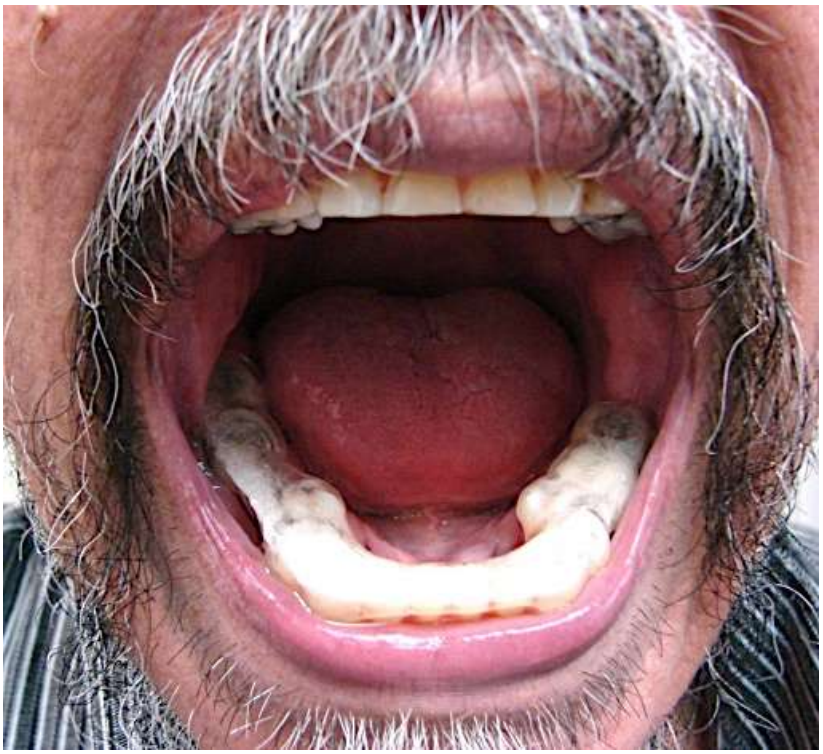


Figure 10.



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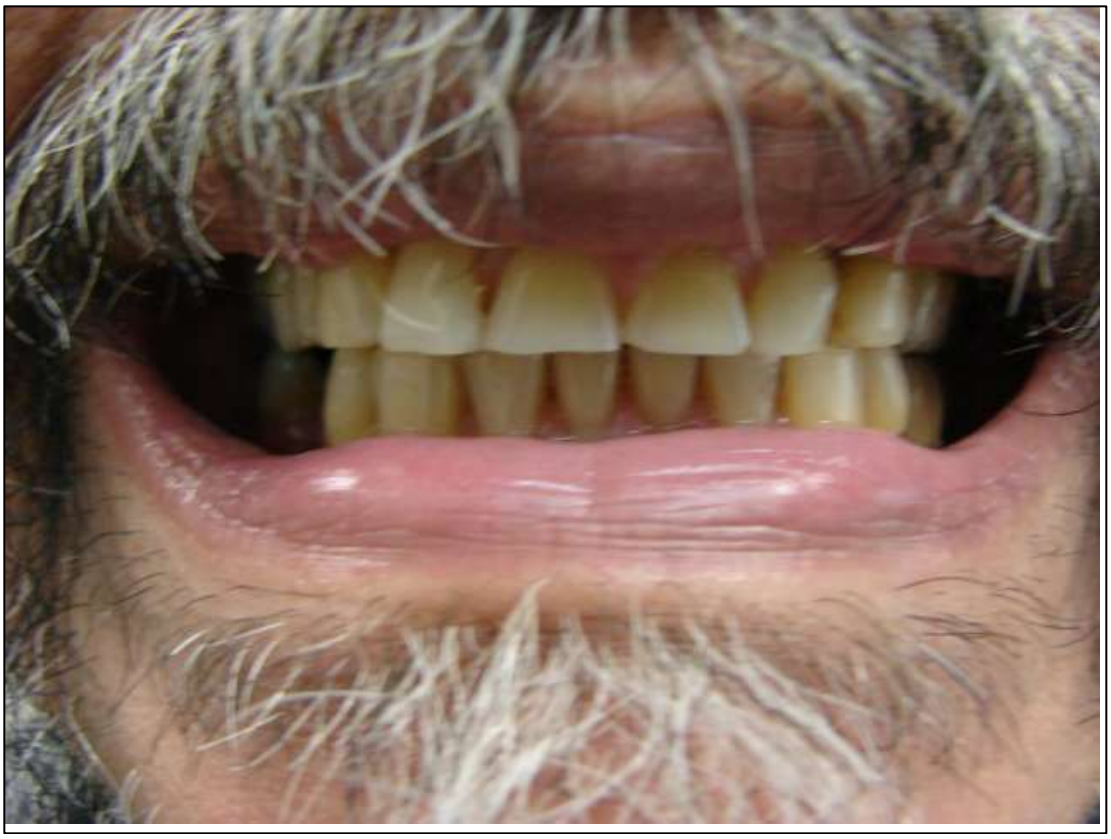

Figure 12.

Figure 13.

Figure 14.

Figure 15. (in wrestling pose)