

## **Case Report: Thomas**

### **S-Subjective Phase**

#### **Chief Complaint**

I have a temporary flipper replacing my front 4 teeth and I need to get the permanent plate made. Also, I need a cleaning.

#### **Medical History**

Tom is a 39 year old male, born to his mother at the age of 19. Tom's mom had complications during the pregnancy with placenta previa and Tom was born 2 and a half months premature. His lungs were not fully developed causing him to have a lot of pneumonia during the first year and a half of life. He functions currently at the first grade level intellectually. He had surgery on his heart in 2006 to remove fluids from around his heart. Tom is currently taking vitamins and minerals. Tom is very conscious of loud noises. He was diagnosed with nearsightedness at age 8, and also has a condition that causes his eyes to twitch. Tom has problems with dry skin that he treats with hand creams and he also experiences arthritis that he controls by reducing sugar intake. Diabetes runs in his family. Tom didn't walk until he was 2 and half and he didn't talk until age 3. Growing up, Tom was high in his weight class and low in height class.

#### **Dental History**

Tom had bad experiences in the dental office growing up, where they were abusing him and it caused him to be very afraid. They also used sedation prior to dental treatment. He now responds well if he knows what is going on. He has had a lot of fillings, and he has been treated multiple times for gum disease starting 10-15 years ago. His gums continue to bleed occasionally when he brushes. He lost his maxillary front teeth to decay and bone loss. He sees a dentist every 3-6 months and gets regular fluoride treatments. Tom's previous dentists didn't inform him or his family of any characteristic oral findings related to his condition. Tom brushes his own teeth with fluoridated toothpaste at least once daily using a combination of electric and manual tooth brush as well as a water pik. Tom reports grinding his teeth. His recent dental treatment has consisted primarily of fabrication of a removable maxillary appliance to replace his maxillary anterior incisors. With this appliance, it is difficult for Tom to bite things in the front and he often has to cut them up or bite with his back teeth.

#### **Family History**

Tom has two younger brothers and a younger sister. He has very far extended family members with the same condition, 5<sup>th</sup> or 6<sup>th</sup> cousins.

#### **Clinical Findings**

Oral examination showed. There is a Class III molar relationship and left side canines are in cross bite. Periodontally, he has 1-4 mm recession, generalized 2-4 mm pockets, localized 5-6 mm pockets on maxillary posterior teeth and mod. BOP on Maxillary lingual. #6 has +1 mobility. Radiographic examination shows impacted #16, recurrent caries #5, generalized 30% bone loss, and localized 50% bone loss in mandibular anterior teeth. Tom has been heavily restored with crowns, amalgams and composite fillings. Tom's flipper has moderate plaque buildup and food debris. Clinical photos show moderate occlusal wear on posterior teeth.

#### **Differential Diagnosis**

Down Syndrome

Characteristic oral features. Most common oral findings include mouth breathing, open bite, macroglossia, fissured lips and tongue, angular cheilitis, delayed eruption of teeth, missing malformed teeth, microdontia, crowding, malocclusion, and poor oral hygiene.

#### **Discussion**

Down syndrome is a congenital autosomal (non-sex chromosome) anomaly characterized by generalized growth and mental deficiency. Down syndrome occurs when an individual has three, rather than two, copies of the 21st chromosome. This additional genetic material alters the course of development and causes the characteristics associated with Down syndrome. Down syndrome is the most commonly occurring chromosomal condition. One

in every 733 babies is born with Down syndrome.

## **P-Treatment Plan**

### **Management**

Tom should be on a 3 month recall. Oral hygiene should be reviewed at each of these appointments. Tom's caries risk is high so he should use prev. 5000+ prescription fluoride tooth paste. He should receive topical fluoride treatments at each dental visit to arrest decay, discussion of diet as it relates to caries should be included. #5 decay may require a crown to restore. A Referral to periodontist to evaluate gum disease, and stability of tooth #6 should be recommended.

Fabrication of permanent partial denture to improve esthetics and function. Using tooth #6 as an anchor tooth should be done with caution and plan for the ability to add that tooth to the partial should he lose it to gum disease in the future. Tom may also be a candidate for a bite splint to reduce tooth wear, but this depends on his tolerance.