NEW YORK, USA/LEIPZIG, Germany: Treating tall people can be a challenge but what if your patient measures a staggering 2.46 metres? Ask Dr Eric Johnson, a Californian dentist. Two months ago, he treated Sultan Kösen, the world’s tallest man according to the Guinness World Records.

The part-time farmer, born and raised in a small town in Turkey, was diagnosed with pituitary gigantism after doctors discovered a tumour behind his eyes triggering the overproduction of growth hormones. One of the many problems resulting from this condition was an increased spacing of his teeth. After watching the documentary World’s Tallest Man on American TV, Dr Johnson offered Kösen a free dental makeover in the US.

According to Dr Johnson, Kösen’s dental anatomy is of average size. However, his growth escalated after his dentition was complete. Prior to his makeover in the US there was a skeletal discrepancy due to the continual growth of his facial structure. Johnson assembled a team of specialists in Orange County, including oral surgeons, periodontists, endodontists, technicians and emergency medical personnel.

Sultan Kösen posing with members of the specialist dental team.

Dr Wyatt Simons performing endodontic treatment.

The overall treatment involved two hours of periodontal therapy, as well as ultrasonic scaling, root planning and the extraction of three unrestorable teeth. The team restored 25 surfaces with direct composite, placed 16 veneers, one CEREC crown, one 5-unit FPD and a maxillary partial denture, as well as did root-canal treatment on one tooth. However, treating the tallest man in the world was not without its challenges. For Dr Johnson, it was the first time he had treated someone of this stature. The top of Kösen’s head touched the ceiling in his office and he had to dodge the light fixtures. The team also had to place a table at the end of the chair to support about one metre of Kösen’s body that extended past the chair. Special instrumentation, however, was not necessary, as his dentition corresponded to normal size.

In addition to these difficulties, Dr Johnson and his team faced a language barrier. “Since Sultan had very limited dental care in the past, I had to try to communicate with him about the treatment,” Dr Johnson remembers. “We relied on Google Translator and Ms Kelly Garret, International Director of Human Resources for Guinness World Records. However, things were lost in translation because Sultan would often laugh at our translation. But we worked it out. Patients understand touch, body language, and tonal inflection.”

In addition to these difficulties, the team of specialists worked hard to give Kösen a successful makeover. Dr Johnson makes special mention of Gary Vaughn from Frontier Dental Laboratories. He worked around the clock for three days fabricating 16 veneers and one 5-unit bridge, all while running his laboratory. “This is an exemplary example of a great relationship between a dentist and his laboratory. We worked together on a huge project in a very little amount of time. This was possible due to excellent trust and communication,” Dr Johnson says.

The team also included Dr Wyatt Simons, who performed the necessary endodontic procedures. Well known for his ability to treat complex pulpal anatomy with precision, Dr Simons says, “I was inspired and honoured with the potential to help Kösen obtain long-term successful results. Not only with this tooth, but also with his entire case, as this tooth was particularly important in increasing his overall treatment outcome due to the unique size of his bite and the need to stabilise his new veneers.”

According to Dr Johnson, should Kösen continue to grow, his Class III malocclusion will continue. He has contacted a dentist in Kösen’s home-town who will do the follow-up dental care. Kösen will also need to continue to have regular periodontal maintenance and have a few more direct composites completed. “Appropriate evaluations and on-going maintenance are key in ensuring longevity for his restorations,” he concludes.

(Edited by Daniel Zimmermann, DTI)