“Dental implants require more attention”

By DTI

One of the applicants to be awarded a grant by the Eklund Foundation for Odontological Research and Education in 2017 was Dr Riccardo Guazzo, who combines his research at the dental clinic of the University of Padua with running a private practice in Vicenza in Italy. Through their research project titled “Peri-implant disease in elderly population: Epidemiology and treatment strategy of an emerging problem”, Riccardo and his team seek to address the increasingly prevalent problem of peri-implantitis in ageing populations, with the ultimate aim of developing effective prevention and treatment strategies.

Your research topic is peri-implant disease in the elderly population. Why is this such an important subject?
Dr Riccardo Guazzo: Dental implants are the biggest revolution in dentistry of the last 30 years. They allow restoration of masticatory function and improvement of patients’ quality of life from an aesthetic, psychological and functional point of view. More and more patients are being treated with dental implants: over 15 million implants were placed in 2013, of which 1.3 million were in Italy alone. The purpose of our study is to assess the prevalence of peri-implant disease in elderly dependent patient populations by studying nursing home residents in the province of Padua in Italy. The constant increase in the use of dental implants and their associated inflammatory pathologies, as well as the increase in the number of elderly patients in nursing homes, underlines the originality and relevance of our study. Furthermore, this study will be the precursor to a wider programme that will aim to prevent peri-implant disease and ensure optimal peri-implant tissue health and maintenance.

Why did you decide to explore this specific topic?
According to the 2015 official data from the Italian National Institute of Statistics, the average life expectancy in Italy for women and men was 83 and 79.6 years, respectively. More and more elderly people go to nursing homes because they gradually lose the ability to maintain an independent life and carry out normal everyday activities, including proper oral hygiene. The last is a fundamental prerequisite for long-term maintenance of dental implants. Inadequate oral hygiene can lead to inflammation of hard and soft peri-implant tissue. Symptoms of peri-implant disease are pain, abscesses, bleeding, halitosis and difficulty chewing. All of these symptoms result in a reduced quality of life.

Does your research focus on a specific region? Are there significant differences between countries?
A great number of people in various countries have implant-supported prostheses. We decided to start our research in the Padua area because there are more than 62 nursing homes in the city, giving us an estimated sample size of 3,000 subjects. Initially though, we will screen patients from a smaller sample.

Why did your topic resonate so well with the Eklund Foundation?
The aim of the study is to investigate the prevalence of dental implants and peri-implant pathologies in nursing home residents. The Eklund Foundation promotes scientific research aimed at improving people’s quality of life, so our research fits perfectly with that aim.

How has the Eklund Foundation’s funding helped you in your research?
Funding is essential for the project. We are employing staff and need specific instruments to conduct our research. We are also providing scholarships and have to cover travel and publication costs. Almost all scientific research has expenses related to staff and equipment. Funding is very important because internal resources are often insufficient.

How do you think the increasing importance of primary prophylaxis will influence implantology?
We hope that the use of dental implants will become more and more accurate through improved knowledge and techniques. Our wish is that primary prophylaxis will be pursued as a way to maintain and improve the health of the tissue surrounding dental implants as efficiently as possible. The longer this tissue remains intact, the longer people with dental implants will enjoy good oral and general health.

What do you want dental professionals to take from your research?
Dental professionals must remember that primary prevention is crucial to proper maintenance of dental implants. We must do everything in our power to prevent and, if necessary, treat peri-implant disease. In doing so, information is key. Patients must be informed about the undisputed advantages of dental implants, but also about possible complications and maintenance techniques. We must remember that dental implants require more attention and preventative care than natural teeth do.