The Sochi 2014 Paralympic Winter Games recently ended, leaving great memories. The Paralympic Games is a major international multi-sport event, involving athletes with a wide range of physical and intellectual disabilities. According to the World Health Organization (WHO) World Report on Disability 2011, more than one billion people in the world live with some form of disability, of whom nearly 200 million experience considerable functional difficulties. In the years ahead, disability will be an even greater concern due to aging populations, the higher risk of disability in older people, and the global increase in chronic health conditions such as diabetes, cardiovascular disease, cancer, and mental health disorders [1]. Disabilities can affect everyday life; even small acts, such as brushing teeth, can be problematic in terms of prosthodontic interventions for patients with special needs. In this regard, I would like to raise two important systemic intervention-related issues: xerostomia and immunosuppression.

First, consider xerostomia. Salivary gland hypofunction can result in xerostomia, or dry mouth, which can greatly affect the quality of life. The detailed mechanism of this process is poorly understood, and the therapy is often complex. In recent years, muscarinic agonists such as pilocarpine and cevimeline have been used clinically to activate saliva secretion in patients with Sjögren’s syndrome and those suffering from side effects of irradiation for head and neck cancers [2]. However, the therapeutic effect of muscarinic agonists depends on the individual, and no definitive treatment for xerostomia has been established. The prevalence of xerostomia is higher among older and medicated individuals; therefore, it will likely increase in the future. Xerostomia results in significant problems in the oral cavity, such as caries, periodontal and peri-implant diseases, and difficulty wearing dentures; consequently, we must focus on that symptom with regard to prosthodontic interventions.

Second, immunosuppressive medications. With advances in medical technology, the transplantation of kidneys, hearts, and livers is performed in many institutions, with high success rates. However, the transplant recipient must take immunosuppressive agents to suppress the rejection of the transplanted organs. This makes it easier for transplant recipients to contract infections because the immunosuppressive agents also reduce the level of immunity to infectious disease. In addition, immunosuppressive therapy is used widely in the treatment of autoimmune diseases. Nevertheless, there are few reports of the effects of immunosuppressant administration on dental treatment, especially prosthodontic interventions. In this issue, Nakagawa et al. [3] described the 10-year follow-up of a patient who received a living-donor lung transplant after dental implant placement. The authors focused on the status of the implant in the patient, who was receiving multiple medications, including immunosuppressants and steroids for the transplant. The article indicated that radiography and periodontal indices were not affected by the transplant surgery or subsequent medication. The relationship between implants and immunosuppressive therapy has been discussed, and the results are controversial. In fact, most reports were of animal studies, not clinical investigations. Therefore, well-designed prospective clinical trials must evaluate the effects of immunosuppression on patients with prosthodontic interventions.

Needless to say, in addition to xerostomia or immunosuppression, aging is becoming the biggest issue in conjunction with some form of disability. Japan and other countries face declining birth rates and aging populations, and Japan is aging faster than any other country. Consequently, the Japan Prosthodontic Society has to be more deeply concerned about prosthodontic interventions for elderly patients. A suggestive case report (in this issue) by Matsuda et al. [4] stated that “ease of maintenance and care” is particularly important in the rapidly increasing elderly population that often requires extensive nursing care. Naturally, many of the elderly would be considered special-needs patients, so we must continue to challenge ourselves regarding special-needs prosthetic dentistry for the next few decades.
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