1. **No.**

   FP01809119

2. **Title**

   Influence of Smoking on Human Circadian Rhythm and Sleep

3. **Period**

   2016-2018

4. **Summary**

Nicotine is a representative autonomic ganglion agonist. It is well known that nicotine inappropriately activates sympathetic nerves to cause cardiovascular disease. We examined the effects of nicotine on the parasympathetic nervous system. And we considered about the health effect of smoking. Human parasympathetic nervous system has a circadian rhythm that is enhanced at night. We think that nocturnal parasympathetic hyperactivity regulates anabolic visceral function. The study found that smoking did not affect parasympathetic circadian rhythms. It was also suggested that smoking did not affect sleep centers in the hypothalamus.

However, compared with the non-smoking group, the smoking group showed significant deterioration in gastric motor function and glycemic control. We considered that these were caused by the relative parasympathetic hypofunction associated with the peripheral sympathetic actions of nicotine. From this study we thought that smoking indirectly affects parasympathetic function. Therefore, it was considered important for health management to maintain the appropriate number of smoking.