

Injuries and Systemic Disorders of Table Tennis Players: Results of a Survey

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Objective

While table tennis is currently enjoyed by more than one hundred million people worldwide, few studies have focused on the medical aspects of this popular sport. We conducted a survey to obtain a profile of the injuries and diseases prevalent among table tennis players.

Method

The subjects were 303 university students (166 males, 137 females) who were selected to participate in the All-Japan Table Tennis Championship Tournament (1989). Questionnaires consisting of 18 items about injuries and systemic diseases were sent out the day before the tournament, and were collected from the players before the opening ceremony. The response rate was 95.3 percent.

Results

1. Injuries were reported by 59.4% of the players, with injuries of the waist (lumbago) (23.5%) and knee joints (13.4%) being the most common (Fig.1). Among the diagnoses noted, tenosynovitis and sprains were the most frequent.
2. About 70 percent of the injuries related to this sport occurred in high school (Fig.2). The players incurred their first injury about 5.9 ± 2.4 years after starting to participate in this sport (Fig.3). The mean time spent in practice was 26.5 ± 9.5 hours per week (Fig.4).
3. Many of the reported disorders were referable to the specific nature of the practice (Fig.5). After treatment, more than ninety percent of players had no hindrance in resuming the game (Fig.6).
4. Diseases of the internal organs were reported by 25.7% of the subjects, with anemia (30.0%) and gastritis or peptic ulcer (23.6%) being the most common (Fig.7). About 70 percent of the cases had occurred during high school (Fig.8).

Discussion

Sports injuries of young players have gained attention only relatively recently. The

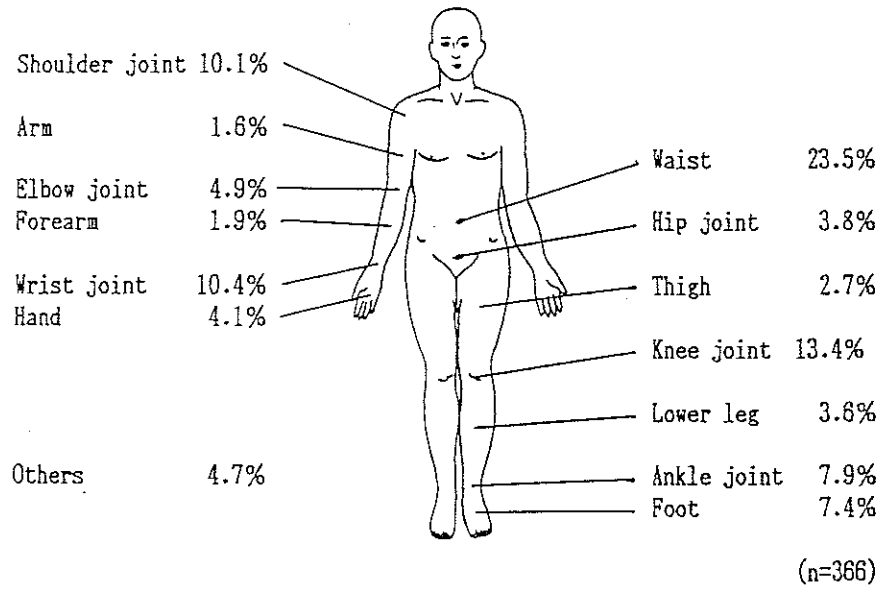


Figure. 1 : Sports injuries reported by table tennis players

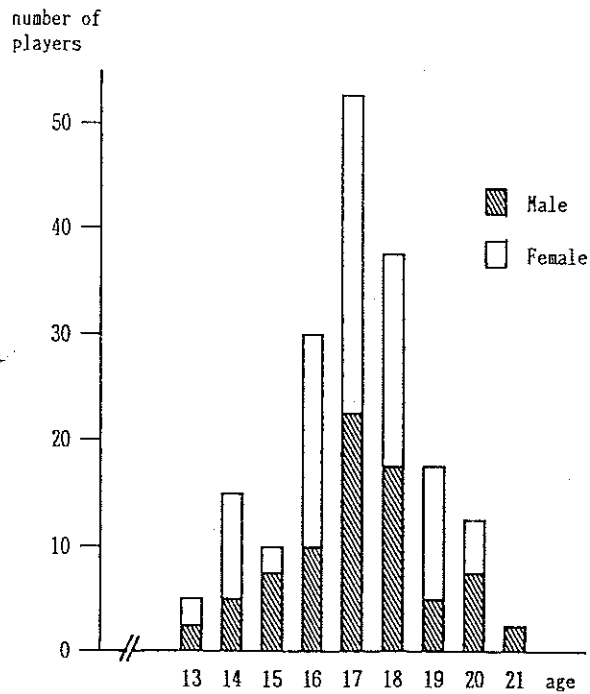


Figure. 2 : Sports injuries and age at which they were detected

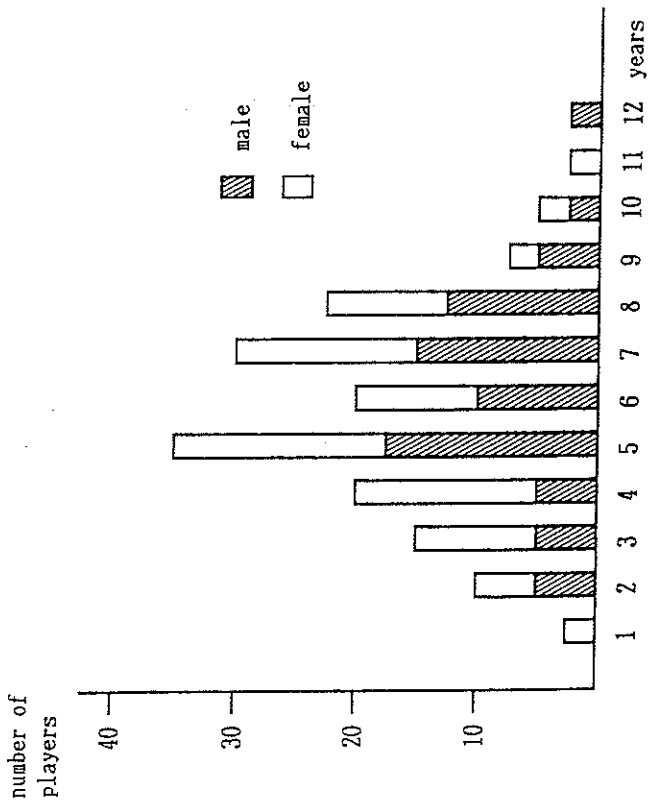


Figure. 3 : Age at which sports injuries occurred in table tennis players

Sports injuries were incurred their first injury about 5.9±2.4 years after starting to participate in the sport.

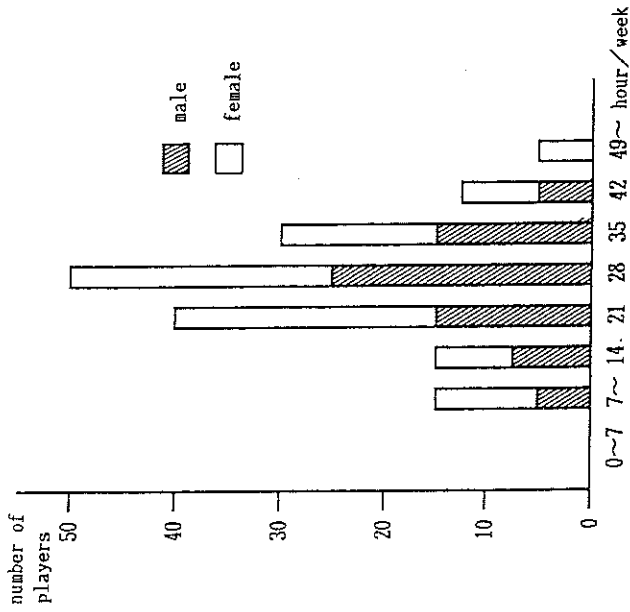


Figure. 4 : Relationship between length of exercise (per week) and incidence (number of players) of injury

The sports injuries developed, while the time spent on exercise by the patients was 26.5±9.5 hours per week.

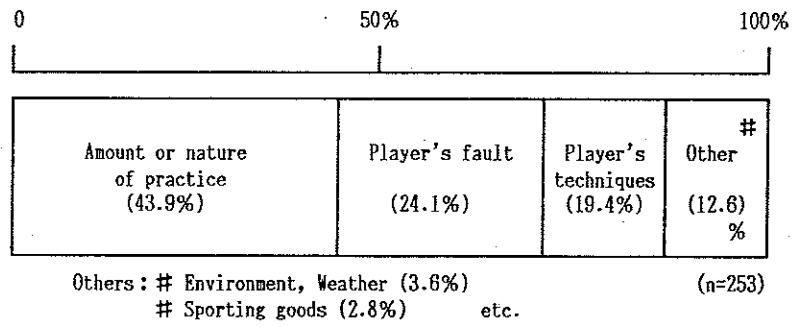


Figure. 5 : Causes of injury in table tennis players

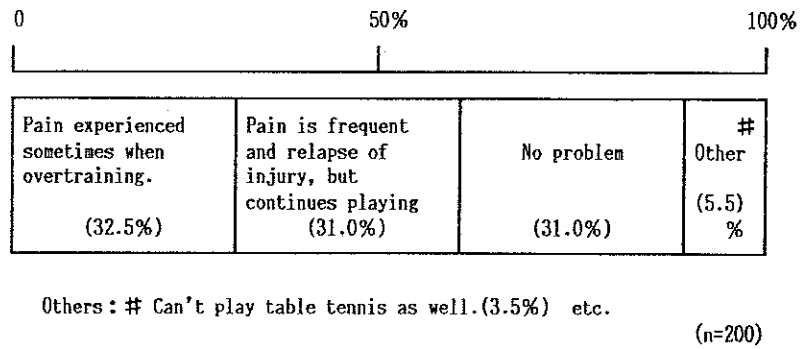


Figure. 6 : Condition of player after treatment

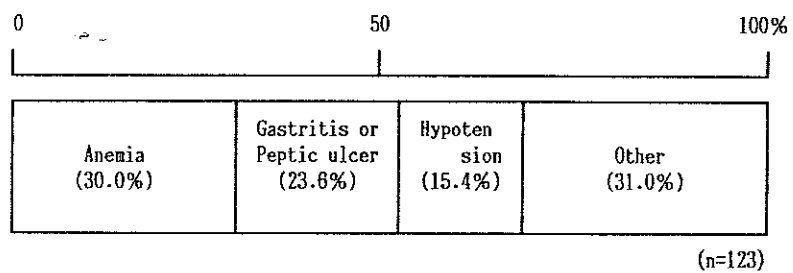


Figure. 7 : Systemic diseases reported by table tennis players

Japan Table Tennis Association has held national tournaments for young players, including those in primary school. The incidence of injuries among promising young players who practice hard to win games can be expected to increase.

This survey indicates that the incidence of injuries, which had previously been considered relatively rare in table tennis, could rise with the increase in length of practice. Injuries were reported by 59.4% of the players. The incidence of injuries tended to be high among high school students who had engaged in the sport for over 5 years, and who routinely practiced more than 20 hours per week. Among the causes of the injuries, the training program was most often at fault. Thus, to reduce the incidence of injuries among table tennis players, education of the instructors and improved practice techniques are urgently required.

Considering the systemic diseases reported in this survey, anemia was reported by many female players. Thus, as in many other young females participating in sport, iron should be part of the regimen. Upper abdominal discomfort including gastritis and peptic ulcers were also commonly reported. The stress of training and of facing major competition increase the risk of such GI problems. Players with severe or recurrent symptoms require diagnostic evaluation including upper gastro-intestinal tract endoscopy followed by the appropriate treatment. We will next survey table tennis players in the junior and senior high schools, as well as the world's top players, if and as feasible. We shall continue these investigations with particular emphasis on ways of decreasing the incidence of injury and of systemic disorders among table tennis players.

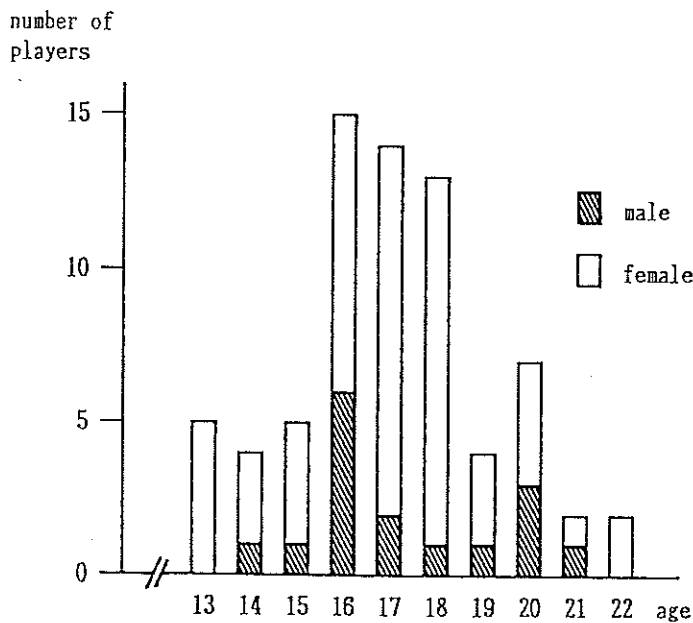


Figure. 8 : Incidence of systemic disease related to age at which it was diagnosed

References

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