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An analysis of the game of blind tennis.

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ABSTRACT

This research compared specific elements of the men's final of a blind tennis tournament to the standard game of top ATP professional tennis players in order to better understand the distinctive features and characteristics of blind tennis. The present rules and regulations of blind tennis allow the visually impaired to enjoy and compete in essentially the same way as normal tennis players.

Key words: Blind tennis, Game analysis, Match time, Rally strokes.
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INTRODUCTION

Blind tennis was created in 1984 by Mr. Miyoshi Takei and was originally called 'Visually Handicapped Tennis'. The first tournament was held in Japan at the National Rehabilitation Center for the Disabled in 1990. Traditionally, visually impaired versions of various sports are played on the ground and the floor. However, blind tennis is played in three dimensions - over a net, using a special ball that emits a rattling sound as it travels and bounces. The exterior of the ball is made of sponge with the rattling ping-pong ball at its core.

Figure 1. Blind tennis ball.

Purpose

The present study aimed to address a dearth of research into blind tennis. Specific elements in the men's final of a blind tennis tournament were compared to the game characteristics of an ATP tour match in order to better understand the distinctive features and characteristics of blind tennis.

Figure 2. Blind tennis player.

METHODS

Comparative analysis

•Japan Blind Tennis Tournament 2008 Men's Final:

Miyoshi Takei VS Yasushi Segawa

•Delray Beach ATP Tournament 2008 Men's Final:

Kei Nishikiori VS James Blake

This study compared the following elements over a span of 4 games, as blind tennis is played on a 4 game set rule.

•time in which the ball is in play

•time in which the ball is out of play

•maximum rally time

•minimum rally time

•average rally time

•maximum rally strokes

•minimum rally strokes

•average rally strokes

•first service percentage

•number and type of errors/winners

RESULTS

Match time

The following table compares total match time, the time the ball is spent in play, and the 'dead' time between points

MATCH TIME	TENNIS	B. TENNIS	B.TENNIS-TENNIS
Total match time	18m 10sec	20m 32sec	2m 22 sec
In play time during a match	4m 05 sec	6m48sec	1m33sec
Out of play time during a match	14m 48 sec	14m 27sec	21sec

Table 1. Time of play & time out of play in minutes.

Based on the above data, it appears to take more time to complete four games of blind tennis when compared with normal tennis. In addition to this, the ball in blind tennis is likely to be in play longer than in conventional tennis. Results also found that there is hardly any difference in the time that the ball is out of play. It is likely that the rule allowing blind tennis players to let the ball bounce up to 3 times before hitting may be the causal factor for the length of time that the ball is in play.

Rally time

The following table compares rally times in terms of the longest rally, shortest rally and also the average rally time.

MATCH ANALYSIS	TENNIS	B. TENNIS	B. TENNIS-TENNIS
Maximum rally time	28.03	33.33	5.3
Minimum rally time	2.4	3.02	0.62
Average rally time	6.7	11.9	5.2

Table 2. Maximum rally time, minimum rally time & average rally time. Based on this data, the maximum, minimum and average rally time is longer in blind tennis. The smaller rackets, slower balls, the smaller sizeof the tennis court are all thought to affect the result.

Rally strokes

MATCH ANALYSIS	TENNIS	B. TENNIS	B.TENNIS-TENNIS
Maximum rally count	11	11	0
Minimum rally count	1	1	0
Average rally count	4	3.4	-1.1

Table 3. Maximum rally strokes, minimum rally strokes & average rally strokes count.

Based on this data, there is no significant difference in the maximum, minimum or average rally strokes between blind tennis and conventional tennis.

Serving percentage

MATCH ANALYSIS	TENNIS	B. TENNIS	B. TENNIS-TENNIS
Winner-first serve percentage	85	72	-13
Runner up-first serve percentage	71	53	-18
First serve percentage average	78.0	62.5	-15.5

Table 4. First service percentage.

Based on this data, the first service percentage is higher in normal tennis.

Winner and error classification

Based on this data, there are marked differences in missed shots where the player fails to make contact with the ball. In addition, winners and aces are considerably higher for normal tennis.

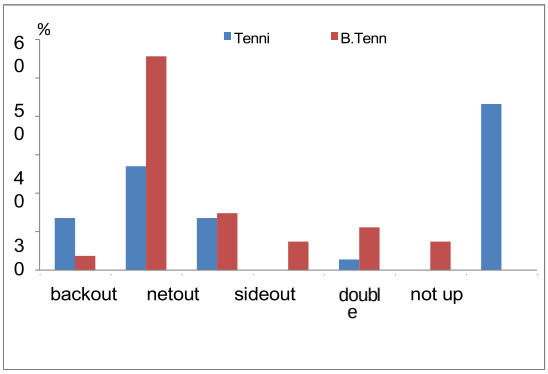

Figure 1. Number and kinds of errors and winners.

CONCLUSION

The data comparing blind tennis with normal tennis has revealed a marked difference in the playing time between the two games. The speed of the ball certainly effects this result, however the number of the bounces is thought to be the main cause for this discrepancy (totally blind players are allowed up to three bounces).

The present study also found significant differences in the number and kinds of errors and winners. Despite these differences, there were also a lot of similarities observed between both versions of tennis, such as the average rally strokes for example. It is concluded that given the unique characteristics of the game of Blind tennis, the present rules and regulations of allow the visually impaired to enjoy and compete in essentially the same way as normal tennis players.

REFERENCES

Tkahashi, H., Maeda, A., Nishizono, H., Kurata, H. (2007). Match analysis focused on playing time in tennis: the progress in Wimbledon final. Japanese Journal of Biomechanics and Sports Exercise, 11(1), 2-8.

Takahashi, H., Maeda, A., Nishizono, H., Kurata, H. (2006). The relationship between point-winning rate and techniques in tennis : An analysis based on regional collegiate championships in Japan. Journal of Physical Education, Health and Sport Science. Vol. 51. No. 4 pp. 483-492. https://doi.org/10.5432/jjpehss.51.483

Sato, S. et al. (2009). The Analysis of the Game of Blind Tennis. Proceedings. The 21st Japan Society on Tennis Science, p29.