

Scientific article

PRODUCING ACUTE PAIN BY MEANS OF A STRIKE AS A RELEVANT PREREQUISITE FOR A SUCCESSFUL REALIZATION OF THE LEVER TECHNIQUE IN REAL AIKIDO

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Abstract: Research was carried out on a sample of real aikido male practitioners aged 35 (± 5 years), who were training three times a week. The criteria for choosing the respondents, along with the age structure and gender, was knowledge of real aikido techniques as well. In that sense, it was decided that the respondents would be the practitioners who had trained real aikido for at least 3, and at most 4 years. The aim of the research was to determine the significance of carrying out the strike directly prior to the lever technique, as a relevant prerequisite for using this technique against the attacker. The subject of research are real aikido skills, which consist of a combining of particular techniques. In pairs, the respondents carried out the lever technique upon the shoulder and hand joints by arranged sparring, as a response to a knife attack. After this, the respondents, prior to the realization of the mentioned lever techniques, inflicted a strike to the attacker which had the aim of temporarily “focusing the attention” of the attacker on the exact body part where the strike was inflicted, which resulted in a weaker resistance of the muscles which carry out a movement in the joint on which the lever technique was carried out. The obtained results justified the presumption that lever techniques will be more successfully carried out if the attacker is inflicted a strike directly prior to their realization.

Key words: *lever, strike, real aikido, acute pain.*

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INTRODUCTION

Basically, the postulates of certain martial arts seem constant, although the techniques as well as the way of their realizing have evolved with the passage of time in almost all martial arts, producing new styles.

The history of aikido and real aikido

It is considered that original (traditional) aikido was founded in 1925. Morihei Ueshiba (1883-1969) carried out a systematization of the partial modification of various Eastern martial arts techniques.

The roots of the earliest aikido martial art can be traced back to aiki-jiu-jitsu, which was founded in the 9th century in Japan. At that time, the mentioned skill was just one of many martial arts which was practiced. It was created by Prince Teijun, the 6th son of the Emperor Seiwa (859-880). The skills consisted of hand strikes which were carried out as sword blows in the gaps of samurai shields. The skill developed slowly until General Saburo Yoshimitsu, the progenitor of a Japanese martial art and an avid devotee of the medical sciences, modified aiki-jiu-jitsu, creating a system called Daito-ryu-aiki-jiu-jitsu. As an 18-year-old, Morihei Ueshiba studied jiu-jitsu in the Kito School in Tokyo. He also studied aiki-jiu-jitsu in the Daito School from 1911 to 1916. Also, he practiced Kenjutsu (Japanese swordsmanship) in the Yagyū School. After the Daito School, he studied jiu-jitsu in the Ashinkage School in 1922, and in 1924 he studied jūjūjitsu (spear fighting). Even though he knew many martial arts, he was dissatisfied with all of them due to the excessive violence associated with them. He came to the idea to create a style of fighting which could defeat the opponent but not harm him. In other words, he wanted to prove to the opponent that the use of physical force is senseless. In accordance with this idea, in 1925 he created his very own martial art - aikido.

Until the year 1948, aikido was an art which was practiced by a relatively small number of people, as Ueshiba did not wish a large number of people to master an art which can be abused. Only after 1948 did aikido spread around the world. At the very end of Ueshiba's life, several styles of this art were formed, even though there is very little difference between them. The aikido which was founded by Ueshiba was mostly continued by the following martial artists: Hiroshi Tada, Tadashi Abe, Morihiro Saito, Moriteru Ueshiba, Yoshimitsu Yamada, and his son Kisshomaru Ueshiba who is the figurehead of the Aikikai Federation.

Ueshiba's student Gozo Shioda (1915-1994) founded the Yoshinkan Institute for Aikido, today called the IYAF (International Yoshinkan Aikido Federation) which is the most prestigious school of aikido. This school produced the famous martial artists Tsutomu Chida, Kancho Inoue, Takashi

Kushida and Sieshi Tekada. One of the students of Morihei Ueshiba in 1930 was also the martial artist Kenji Tomiki who made an attempt to connect aikido and judo, and thus he is considered to be the founder of the modern style of self-defense in judo.

The other famous styles are the following: Daito-ryu (Nakamura), Yoseikan (Mochizuki), Harai style, Takeda-ryu-takeda and Tendoryu (Kenji Shimizu). Real aikido is a relatively young martial art founded by *soke* (soke: headmaster in Japanese) Ljubomir Vračarević. This is an authentic martial art which ensued from traditional aikido (Milosavljević, Matavulj and Trunić, 2013). Ljubomir Vračarević studied with the greatest masters of the age, some of which are the following: Kishomoru Ueshiba, Gozo Shioda, Tsutomu Chida, Kenji Shimitsu, and Hiroshi Tada. He arrived at the idea of founding his own aikido style by desiring to remove all religious elements and elements of mystification from aikido, especially insisting on style efficiency. This is an authentic Serbian martial art (Milosavljević & Vračarević, 2011), and the main features and attributes of this art in regards to aikido is the existing of strikes which in the majority of cases are inflicted upon the attacker in vital areas prior to realizing the lever technique. The system of training real aikido, as the name itself implies, puts an emphasis on a real attack by the opponent. The founder of real aikido created training sessions which aimed to master the defense techniques which would be applied in real life situations (Vračarević, 2007). Real aikido is used in the training processes of army, police and bodyguard special forces as well. Soke Ljubomir Vračarević trained special forces members and bodyguards in the countries of Zimbabwe, Libya, Macedonia, Republika Srpska, Kazakhstan and Slovenia. Real aikido courses were held for members of special units all over the world, and especially mentioned should be working with the Russian Alpha unit, for which master Ljubomir Vračarević received a high military decoration from General Fetisov.

The following also passed through the real aikido training programs: the special units MČS, MVD, Wolf commando units and the special units for presidential security. Along with applying this martial art for the training of special units, the same was also applied in training bodyguards and protective security services according to IBSSA standards, and licensed martial artists are at the moment securing around 80 heads of states all over the world. One of the most important activities of real aikido is working with children, which is carried out via a special program called "Playing toward Mastery". The program has been adapted to the psychological and physical attributes of children between the ages 5 and 12 and has produced excellent results. Today, real aikido martial artists train the very young as well as the elderly, so the number of practitioners is assessed to be around 15,000 in some 200 clubs all over the world.

The subject of research of this paper is the skill of real aikido, which consists of a combination of particular techniques.

The aim of research is determining the significance of the strike technique carried out directly prior to the lever technique, as a relevant prerequisite for a successful realization of carrying out the lever technique against the attacker.

METHOD

In this research, the experimental factors were the techniques of strikes which were during “arranged sparring” realized after the blocking techniques, directly prior to carrying out the lever technique, as a defense response to the attack. The strike movement structures can be realized with the hands and feet along with using other parts of the body, and have the aim to destroy the opponent or create a tactical strategy in whose realization various abilities participate (Milošević, Zulić and Božić, 1989).

The efficiency of strike techniques is in a direct correlation with time management and the speed of realization (Blagojević, Vučković and Dopsaj, 2012).

Respondent sample

The respondent sample in this research was taken from the practitioners of real aikido and made up of males aged 35 (± 5 years), who train 3 times a week. Along with this, the respondents belonged to no single club but were from various clubs, and thus also various cities. The criterion during the choice of respondents, along with the age structure and gender, was also the degree of knowledge of the techniques of real aikido. In that sense, it was decided that the respondents would be practitioners who have been training real aikido for at least 3, and at most 4 years. The mentioned training period secures a quality realization of individual techniques, as well as a combination of individual techniques which were realized within this research. Thus, this is a planned and chosen sample. “We form a chosen sample from the units of the cluster which we choose according to personal conviction as typical or representative for a basic given cluster” (Žižić et al., 1993, 142). In total, at the beginning, some 42 male respondents (11 pairs) were observed, and the plan for the final observation and while assessing the efficiency of carrying out the lever was to monitor no less than 38 respondents (19 pairs), due to fluctuation. All the respondents were of good health and without any injuries during observation, regular when it came to training, and consented with their own free will to be assessed in carrying out the lever technique through arranged sparring.

The observed variable

The observed variable was the lever technique. During the realization of this technique, there was an intense and quick stretching of tissue in the joint area (Mudrić, 2005). These involve techniques which can control the opponent by creating the sensation of pain.

The procedure of determining the success of realizing the lever technique with and without inflicting a strike

Through arranged sparring, in pairs, the respondents carried out all the planned attacks one by one. First a partner tried to defend himself from an attacker with a knife from top to bottom, after this attacking directly, during which in one variant the defender could not use a strike before the lever, while in the other variant a strike before realizing a lever was mandatory. Only after that was the defender's role taken over by the opponent, that is, the roles changes. It is important to stress that during the arranged sparring, a rubber knife was used.

Attack no. 1. a) The variant without a strike: One practitioner carried out an attack with a knife top to bottom trying to strike the opponent with a knife in the area of the head. The one defending himself first carried out a block with an extended hand upwards, and then attempted to carry out a lever on the shoulder joint by excess twisting – an overhand grip.

Attack no. 1. b) The variant with a strike: One practitioner carried out an attack with a knife top to bottom trying to strike the opponent with a knife in the area of the head. The defender first carried out a block with an extended hand upwards, while with the opposite hand he inflicted a controlled strike with the fist directly into the body of the attacker, and only after that he tried to carry out the lever on the shoulder joint by excess twisting – an overhand grip.

Attack no. 2. a) The variant without a strike: One practitioner carried out a knife attack trying to inflict a knife blow into the stomach of the opponent. The defender first carried out movement by sliding forward, carrying out a blocking by crossed forearms facing downwards, and then attempted to carry out a lever on the hand joint by excess twisting.

Attack no. 2. b) The variant with a strike: One practitioner carried out an attack with a knife straight ahead trying to inflict a knife in the stomach of the defender. The defender first carried out the movement by sliding backwards, then a blocking with crossed with both forearms facing downwards, and with an extended hand inflicted a controlled strike straight ahead with the upper side of the fist into the defender's body, and only after that he tried to carry out a lever on the hand joint by excess twisting. Acute pain in the attacker, which he indicated by "tapping" the hand or the foot was an indicator

that the defender had carried out a lever to the attacker. By definition, pain is an unpleasant sensory or emotional experience which is caused by a possible or already existing tissue damage or which is described by the words which would fit the mentioned damage (Arlov, 2007).

Statistical analysis

Considering that the variables have been analyzed according to the principles success/no success (allotted were values 1 for a successful technique – 2 for unsuccessful) of the carried out task, to determine the statistically significant differences used was a Wilcoxon test for dependent samples while in both cases compared were the variables BUNAP1 (without strike attack 1) SUNAP1 (with strike attack 1) and in the other case BUNAP2 (without strike attack 2) SUNAP2 (with strike attack 2). The observed level of statistical significance was $p=0.05$.

RESULTS

The results of the statistical analysis are given in tables 1 and 2 (for attack 1 and attack 2 respectively).

Table 1. *The results of statistical analysis for variable attack 1.*

| Wilcoxon Matched Pairs Test Marked tests are significant at $p < .05000$ | | | | |
|--|-----------|----------|----------|-----------------|
| | Valid - N | T | Z | p-level |
| BUNAP1 & SUNAP1 | 38 | 14.00000 | 4.204375 | <i>0.000026</i> |

As can be seen from the table, the results for variable BUNAP1 are statistically different ($p=0.000026$) and on the level $p=0.001$ from variable SUNAP1. Considering that in the case of SUNAP1, the number of successfully realized techniques are far greater than BUNAP1, we have concluded that the realized technique which is preceded by the strike is a far more efficient method of defense and as such, it is recommendable in training the mentioned techniques.

Table 2. *The results of statistical analysis for variable attack 2.*

| Wilcoxon Matched Pairs Test Marked tests are significant at $p < .05000$ | | | | |
|--|-----------|---------|----------|-----------------|
| | Valid - N | T | Z | p-level |
| BUNAP1 & SUNAP1 | 38 | 7.00000 | 2.690598 | <i>0.007133</i> |

As can be seen from the table, the results for variable BUNAP2 are statistically significantly different ($p=0.007$) on the level of $p=0.05$ from the SUNAP2 variable. Considering that in the case of SUNAP2, the number of

successfully realized techniques is far greater than BUNAP2, we can conclude in this case as well that the realized technique which precedes the strike is a far more efficient method of defense and as such recommendable in the training of the mentioned techniques.

DISCUSSION

Where real aikido is involved, this topic has hitherto not been researched. Looking at the obtained results, the significance of the experimental factor of the strike as a technique which will contribute to a larger number of successfully realized lever techniques is clear, under the condition that the strike is carried out directly before the lever technique. In the case of real aikido, a strike is a means for inflicting acute pain immediately before the realizing the lever technique. Practice has shown that it is not easy to carry out a lever in real aikido, especially on the joints in which movements are carried out by engaging larger and stronger muscle groups. Thus, the results are not surprising, as they are in favor of the theory that without a strike the lever technique on the hand joint in which the engaging of smaller and weaker muscle groups will be realized with success in comparison with the shoulder joint in which movements of larger and stronger muscle groups.

When the strikes were inflicted on the attacker directly before the lever, the number of successfully carried out levers increased in the hand joint in which the movements are carried out by engaging smaller and weaker muscle groups, and thus also on the shoulder joint in which the movements are carried out by engaging larger and stronger muscle groups. The strike inflicted on the attacker invoked acute pain, which obviously temporarily “focused the attention” of the attacker on the body part on which the strike was inflicted, which resulted in a weaker resistance of muscles which carry out a movement in the joint on which the lever is realized. It is also interesting that regardless of the fact that carrying out the strike increased the number of successfully carried out levers, even with a strike inflicted directly prior to carrying out the lever technique a larger number of successfully carried out levers were realized on the hand joint in which movements are carried out by engaging smaller and weaker muscle groups than on the shoulder joint in which movements are carried out by engaging larger and stronger muscle groups.

CONCLUSION

The subject of research of this paper is the martial art of real aikido which consists of a combination of particular techniques. This research had

the aim to determine the significance of the strike technique which was carried out directly before the realizing of the lever technique, as a relevant prerequisite for a successful carrying out of the technique. The obtained results speak in favor of the fact that without a strike a larger number of successfully carried out levers were realized on the hand joint in which movements are carried out by engaging smaller and weaker muscle groups than on the shoulder joint in which movements are carried out by engaging larger and stronger muscle groups.

When the strike was inflicted directly before carrying out the lever technique, the number of successfully carried out lever techniques increased in both the hand as well as the shoulder joint. The strike inflicted on the attacker caused acute pain, which evidently temporarily “focused the attention” of the attacker on the body part which was struck, which in turn results in a weaker resistance of the muscles which carry out the movement in the joint upon which the lever is carried out. Thus, in real aikido, if within a certain problematic situation there is a possibility to choose, the option of carrying out the strike directly prior to carrying out the lever technique should be chosen, which is also valid for carrying out the lever on the joint which engages smaller and weaker muscle groups, and not on the joint which engages larger and stronger muscle groups.

Future research of this area should move towards determining the increase of the number of successfully realized lever techniques with the prior use of some other particular technique (pressure, pinching, etc.). Such research would without doubt contribute to a positive evolution of real aikido which like every other martial art would come “alive” and be prone to positive changes and directed towards a more efficient solving of certain difficult situations.

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