The importance of the special-auxiliary “JIM-X” exercise for improving the snatch technique in weightlifting

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Abstract

This article highlights the improvement of the snatch lift technique from competitive exercises by developing the muscular strength involved in the catch phase when receiving the barbell in a squat position, thereby effectively reinforcing the catch phase movement.

In addition to the complexity of snatch lift movements, the applied strength, speed, and speed-strength abilities must be highly developed. Otherwise, the lifted weight may not be completed due to technical errors. This article explains the rules of performing the "Jim-X" tool as a special auxiliary exercise for increasing the strength of arm muscles in the movement of receiving the barbell in a squat position, simultaneously improving the flexion of the knee joints and the extension of the elbow joints.

Keywords: weightlifting, snatch, catch phase when receiving the barbell, improvement, phase, “Jim-X”.

Introduction

Today, the number of competitive athletes is increasing. To overcome opponents, specialists are conducting scientific research in various areas. It has been concluded that technical training plays a significant role in improving the physical, physiological, psychological, and tactical preparedness of athletes. This is because technique embodies the concept of rational, easy, and correct execution. Therefore, training athletes in the technique of performing competitive exercises based on an individual approach from the very first day of practice creates the foundation for achieving high results.

In weightlifting, competitive exercises consist of movements requiring speed-strength qualities, and it is customary to perform lifts with weights in a short time based on existing movement elements. According to the competition rules of weightlifting, the snatch is performed first. Therefore, when constructing tactical actions in competitions, the result of this exercise is of great importance in carrying out tactical actions in the subsequent clean and jerk. According to competition rules, an athlete is given three attempts to demonstrate their highest potential in this exercise (three approaches). Unfortunately, athletes often make mistakes during the squat phase under the barbell. They cannot complete this exercise due to the inability to maintain balance during the squat phase, dropping the barbell forward or backward, or the movement of the elbow joints of one or both arms when attempting to fix the barbell overhead.

To overcome the above mistakes, many coaches perform exercises such as snatches, quickly squatting under the barbell after jerking it from the shoulders at snatch width, and overhead squats while holding the barbell at snatch width. However, these exercises do not fully capture the final movement of squatting under the barbell in the snatch and the fixation phase of the squat under the barbell, as seen in the "Jim-X" (Jim-Khodzhaeva) exercise.

The snatch involves not only quality fixation while squatting under the barbell but also maintaining the weight of the barbell overhead. Therefore, the development of arm muscle strength within the snatch grip width should not be overlooked.

Results and discussion

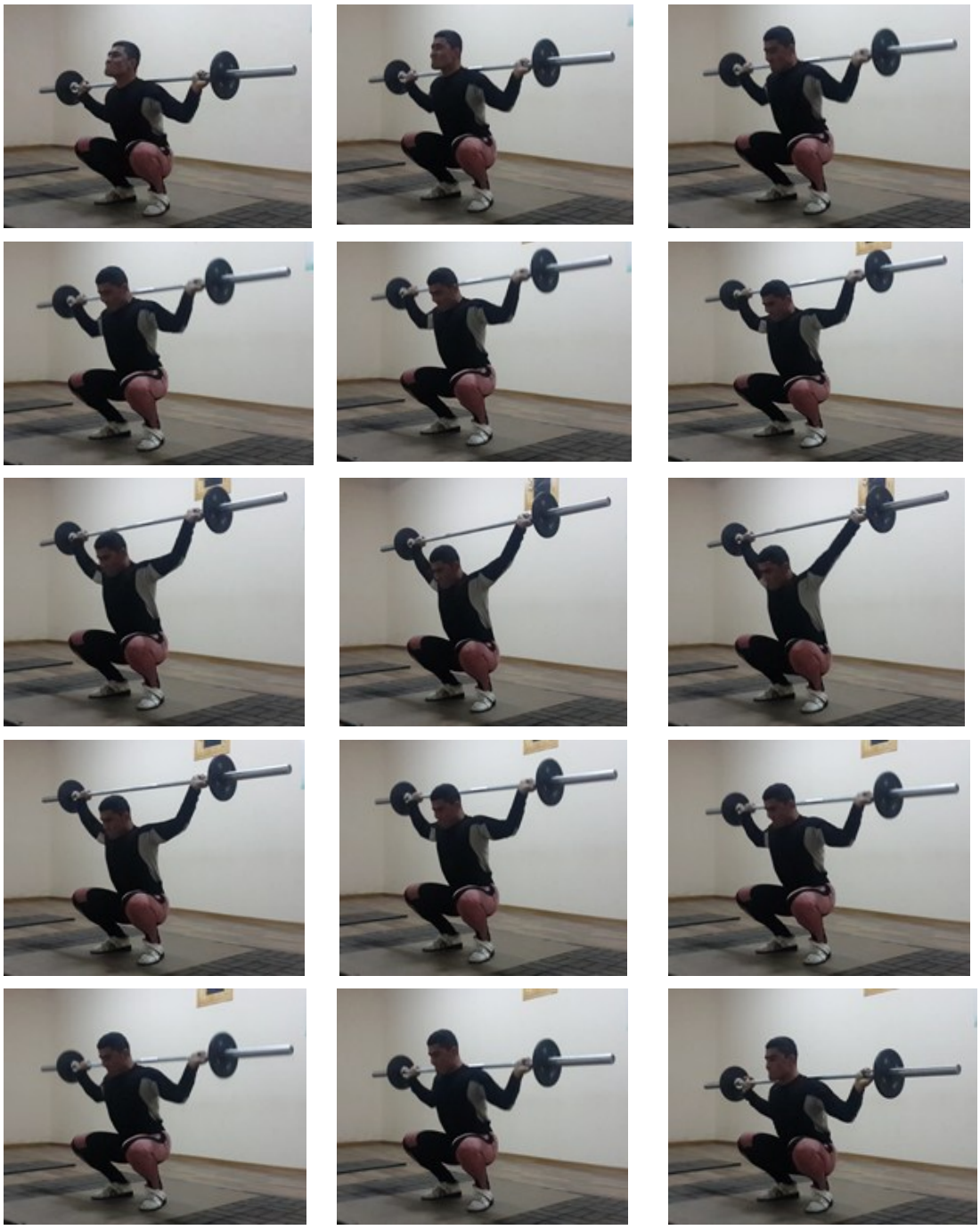
The movement in the "Jim-X" exercise, based on the supporting squat under the barbell and squat phases of the snatch, ensures maintaining the athlete's balance when performing in the athlete-barbell system, develops the muscles that move the shoulder girdle and elbow, and ensures the movement of the hip joint at a single point along the center of gravity.

Let's consider the rules for performing the “Jim-X” exercise.

The “Jim-X” exercise is performed with movements exactly analogous to the supporting squat under the barbell in the snatch and the fixation movements in the squat under the barbell.

Pay attention to the alignment of the torso, lower back, and legs along the center of gravity).

Fig 1. Procedure for performing the "Jim-X" exercise to reinforce the catch movement when sitting under the barbell in the snatch.



Exercise procedure: From the starting position, while maintaining balance, slightly rise using leg muscle strength (15-20 cm depending on body type), while simultaneously raising the barbell with arm muscle strength. The body then returns to the starting position (similar to the catch position when sitting under the barbell in a snatch).

The starting position of the "Jim-X" exercise is taken as a full squat position with the barbell held at snatch grip width, positioned behind the head (on the shoulders) at the same width as the legs during the catch phase of the snatch exercise when sitting under the barbell (maintaining balance with the center of gravity aligned).

When performing the exercise and extending the bent elbows, the leg muscles provide lateral support. At the end of the exercise, the knee and elbow joints complete their movement simultaneously. To repeat this exercise, it is necessary to observe the

Table 2. Indicator of the fixation phase when squatting under the barbell in the high-intensity zone

Percentage of weightlifter's maximum weight for the exercise type								
80-89%			90-99%			100-101%		
Barbell lifting height (%)	Fixation while squatting under the barbell (%)	Difference between the height of the barbell lift and the height of fixation while squatting under the barbell	Barbell lifting height (%)	Fixation while squatting under the barbell (%)	Difference between the height of the barbell lift and the height of fixation while squatting under the barbell	Barbell lifting height (%)	Fixation while squatting under the barbell (%)	Difference between the height of the barbell lift and the height of fixation while squatting under the barbell
73.0	**66.9**	**6.1**	**73.1**	**66.9**	**6.2**	**72.9**	**66.9**	**6.0**

following requirements: When lowering the aforementioned barbell onto the shoulders, we slightly stand up using the legs and receive the barbell on the shoulders. As the barbell connects with the shoulders, we absorb the descending barbell laterally using leg muscle strength, and we repeat the exercise with a continuous cushioning movement.

The table shows that successful participation of weightlifters in competitions depends on many factors, including their technical and physical preparedness. The ability to perform three attempts in each exercise is largely determined by the technical readiness of weightlifters, particularly the reliability of their stability in executing competitive exercises.

The absence of weak links in the chain of components that make up the snatch and clean and jerk exercises is crucial for the stable and reliable participation of weightlifters in

Table 2. Reliability indicators of the research groups' implementation of approaches in performing snatch and clean and jerk exercises

Position	***Snatch***							
	Unsuccessful approaches						*Successful approaches*	
	1		2		3			
	number	%	number	%	number	%	number	%
At the beginning of the study	3	18.7	5	31.2	4	25.0	36	75.0
At the end of the study	0		2	12.5	2	12.5	44	91.7
difference							8	16.7

competitions.

As we can see in the table, the initial results indicate that the reliability of participation in the competition is not being fully utilized. Of course, these indicators show the reasons why the athletes are unable to fully utilize their attempts: *firstly,* low level of technical proficiency, i.e., insufficient barbell lifting height to perform the catch phase when squatting under the barbell in the snatch; *secondly,* loss of control over the barbell's direction of movement; *thirdly,* low level of physical fitness; *fourthly,* incorrect weight selection based on the weightlifter's approach; *fifthly,* the weightlifter's unpreparedness to approach the lift; *sixthly,* low level of psychological preparedness for each attempt, and so on.

At the end of the study, due to the improvement in trainees' skills, their successful attempts increased to 8. The effectiveness of the conducted research was proven in practice. In competitions, the overall successful attempts in the snatch exercise increased by 6.9%, with athletes completing 91.7% of their attempts successfully.

During the study, it was also analyzed that after introducing the recommended special auxiliary means into the training process, the trainees not only improved their sports results but also successfully utilized the approaches (opportunities) given for the snatch exercise.

Conclusion

In weightlifting, there are two independent competitive exercises, of which the snatch is considered technically more complex. Mastering this exercise and successfully lifting planned weights contributes to overcoming competition and achieving victory in competitions. In strengthening the movement of the catching phase in the snatch while sitting under the barbell.

The "Jim-X" technique of lifting strengthens the movement (phase) of sitting under the barbell in the snatch. It improves the strength of arm muscles used in the movement of sitting under the barbell, enhances the balance between the barbell and the athlete, helps to feel the weight of the barbell when catching it in the bottom position, strengthens the knee and arm joints, and allows for quick fixation. This exercise can be used as the main specialized exercise for improving the technique of performing the snatch in the arsenal of weightlifting exercises.

References

Matkarimov R.M., Kim D.F. **(2007)** *Weightlifting: Program and Study Guide for Children's and Youth Sports Schools, Specialized Children's and Youth Sports Schools of Olympic Reserve. - Tashkent: Lider-press.*

Marchenko V.V**. (2002)** *Methodology for Improving the Technique of Weightlifters: Educational-methodical development on the to*pic "Main means of training and methods of their application" / V.V.Marchenko, V.N.Rogozyan, D.V.Popov; State Committee of the Russian Federation for Physical Culture Gos. Kom. Ros. and Sports. - Krasnodar: [s.n.], 117 p.

Olympic Weightlifting: Cues & Corrections Paperback - 6 Oct 2014

Wil Fleming. Complete Olympic lifting. Dr. Tamas Ajan, Prof. Lazar Baroga **(1988).** Weightlifting fitness for all sports.

Olympic Weightlifting: **(2009)** *A Complete Guide for Athletes & Coaches Paperback* - 25 by Greg Everett (Weightlifting: A Collection of Manuals for Athletes)

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