

槍投げにおける目標を狙った立ち投げ練習の動作課題 —投擲時の動作課題が槍の初速度に及ぼす影響を手がかりに—

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【要 約】

本研究は, 槍投げ初級者が導入練習として実施する目標立ち投げ練習の動作課題を検討するために, 実験的に動作課題を変えた場合の投擲パフォーマンス(リリース時の初速度等)への影響を検討した. 被験者は, 槍投を専門とする大学競技者(専門群)5人と槍投げ以外の陸上競技を専門とする大学陸上競技者(非専門群)5人を対象とした. 以下の異なる2つの動作意識で行う目標立ち投げ練習試技Aと試技Bを10mと15mの目標設置距離で行わせ, リリース時の初速度, 右胴体の傾き及び起こし回転角度を比較した. 試技Aは槍のリリース後に右足を前方へ踏み出さないもので, 試技Bは右上半身(右胴体)を目標物に当てるような感覚で投げ, 槍のリリース後に勢いで, 右足を前方へ踏み出す方法である.

その結果, 以下のことが明らかとなった.

- 1) 専門群, 非専門群ともに, 目標設置距離に関わらず, 試技Bは試技Aに比べ初速度が有意に大きかった.
- 2) 右胴体の傾き及び起こし回転角度は, 目標設置距離に関わらず, 試技Bが試技Aに比べ左足接地時からリリースまでの上半身の前方への移動が有意に大きく, 身体がより前に倒れながら槍をリリースしていた.

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Problems with the motions of the standing throw aiming at the target in javelin: Influences of the throwing motion on the initial velocity of the javelin

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[Abstract]

The present study investigated influences of changing the motions involved in throwing, such as the initial velocity at the moment of release, in introductory training, in order to examine problems with the standing throw aiming at a target that were introduced by beginner throwers of the javelin. The participants were 10 university athletes: 5 who specialized in the javelin (expert group) and 5 who specialized in other sports (inexperienced group). The participants were instructed to use two kinds of standing javelin throws, A and B, with different motion consciousness goals, with the target at distances of 10 m and 15 m. The initial velocity at the moment of release of the javelin, the inclination of their trunk, and the angle of rotation of their trunk at the time of release were compared. In A trials, they did not step forward on their right foot after releasing the javelin, while in B trials, the javelin was thrown with a feeling of hitting the target with their right upper trunk and they stepped forward with their right foot after releasing the javelin.

The following results were obtained:

- 1) Both the expert group and the inexperienced group showed significantly higher initial velocity in the B trials than in the A trials, regardless of the distance to the target.
- 2) Measurements of the inclination of their trunk and the angle of rotation of their trunk at the time of release indicated that the forward movement of their upper body was significantly larger in the B trials compared to the A trials, regardless of the distance to the target. Their trunk was turned forward when the javelin was released.