ABSTRACT

Background: Clinical testing to determine the presence of a cam morphology is becoming more common however the correlation between hip range of motion and the degree of cam morphology remains controversial in the literature. The prevalence of a cam morphology in athletes has been reported as higher than in the general population but the prevalence of cam morphology has not been reported in Australian Football (AF).

Purpose: The purpose of this study was to determine the correlation between hip range of motion and hip alpha angle and report the proportion of players with a cam morphology in a sample of AF players.

Design: Cross-sectional Study.

Methods: Twenty-one semi-elite AF players (42 hips) from the Peel Thunder Football Club were included in this study. A hip Flexion Internal Rotation (IR) test and a modified maximal squat test using the difference in depth of squat in hip internal and external rotation were used. These measures were then compared to alpha angles on 90 degree Dunn view x-rays.

Results: Four of the 42 hips (9.5%) had a cam morphology (alpha angle >60 degrees). There was no significant correlation between alpha angle and ROM in a Flexion IR test or the difference in modified maximal squat test depth within this sample of players.

Conclusions: The proportion of cam morphology seems to be lower in this sample than the previously reported prevalence in other sports. The lack of correlations between hip range and hip alpha angle in players means that screening hips using clinical measures to detect cam morphology associated with poor hip range of motion may be inaccurate.

Level of Evidence: Level 3a

Key Words: Femoroacetabular impingement syndrome, groin pain, range of motion, screening tests