300 **THE PREVALENCE OF PATELLAR TENDINOPATHY IN ELITE ACADEMY RUGBY; A CLINICAL AND IMAGING STUDY WITH 12 MONTH FOLLOW UP**

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Background Patellar tendinopathy (PT) is a challenging condition with variable outcomes. Injuries that are traditionally associated with training volume such as tendinopathies are less frequently reported in rugby but are likely to increase as a result of more intensive training regimens.

Objective To evaluate the prevalence of PT in elite academy rugby.

Design Cross sectional, observational study with 12 month follow-up.

Setting Elite/international division rugby.

Participants All members of the academies of the rugby provinces (Munster, Leinster, Ulster and Connacht) of the Irish Rugby Football Union (IRFU) were invited (*N*=87) and 83 players participated in the study. Mean age was 20.4 years (1.48), with a mean of 11.9 years (2.8) experience.

Risk factor assessment Anthropometrics, body mass, and fat % were measured by bio-impedance. Clinical examination investigated symptoms. Ultrasound examination established tendon thickness, echogenicity and homogeneity including focal areas of tendinopathy in both transverse and longitudinal planes. Statistical analysis was performed using PASW 18 and CIA software.

Main outcome measurements The Cincinnati Sports Activity Scale, established activity levels. The VISA-P scale evaluated symptoms. Ultrasounds were reviewed and graded by two musculoskeletal radiologists.

Results 30 participants (36.1%) had US abnormalities with 38 abnormal tendons. The abnormalities were microcalculi (44.7%) (N=17), thickened tendons +/- large areas of cystic degenerative change (26.3%) and macrocalculi or large hypoechoic areas (28.9%) (N=11). Eleven participants (13.3%) fulfilled the clinical diagnosis of PT based on clinical examination. Combining both US and clinical exam, the prevalence of PT was 9.6% (N=8). There was a statistically significant difference between the prevalence of patellar tendinopathy based upon US findings (P=.027) and the combination of both clinical examination and US (P=.044) in different training academies. Twelve-month follow up data will be reported.

Conclusions PT is a relatively common injury in elite academy rugby players and training practices may contribute to its development.