Results Overall, boys had significantly higher valgus KFM values than girls across both data collections (P=0.001). Also, a significant interaction between sex and age was observed, where girls and boys demonstrated respectively an increase and decrease in the valgus KFM values from pre-adolescence to adolescence age (13.8% increase vs. 10.6% decrease: P=0.001).

Conclusion The remarkable increase of KFM in adolescent athlete girls may, in part, play a role in their risk of ACL injury, although future studies need to assess the relationship between this increase and rate of ACL injuries.

25 STRENGTH, FUNCTION AND OVERALL HEALTH BEFORE AND AFTER SURGICAL OR CONSERVATIVE TREATMENT OF PROXIMAL HAMSTRING AVULSION

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Introduction Proximal Hamstring Avulsion (PHA) is a rare injury and happens with hyperextended knee and hyperflexed hip.

Materials and Methods The aim of the study was to investigate the effect of surgical and conservative treatment of PHA.

Patients with MRI-verified PHA were included and had either surgery or training. At baseline, at 6 and 12 months follow-up, all patients answered Perth Hamstring Assessment Tool (PHAT), Hip Sports Activity Scale (HSAS), overall-health Visual Analog scale and had their knee flexion strength measured at 30 degrees using handheld dynamometer.

Results 13 patients had surgery (mean age 51±15, 46% females, 15 days after injury) and 13 patients had training (mean age 50±17, 46% females, 64 days after injury). In the surgical group, the median PHAT score increased from 41 to 70 to 82 (p<0.001), their overall health: 50 to 80 to 80 (p=0.025) and their HSAS: 0 to 3 to 3 (p<0.01). In the training group, the PHAT score increased from 51 to 68 to 77 (p<0.001). Overall health improved from 69 to 75 to 80 (p=0.025), while HSAS went from 0 to 1 to 1 (p<0.01). Median knee strength improved in the surgical group from 0.22 to 0.67 to 1.07 Nm/kg (<0.001) and in the training group from 0.24 to 0.44 to 0.48 Nm/kg (p<0.001).

Conclusion At 12 months follow-up, both groups improved PHAT and overall health. However, the surgical group improved more in knee flexion strength and were able to participate in sports at a higher level than the training group.

26 COMBINED HORMONAL CONTRACEPTIVE USE IS NOT PROTECTIVE AGAINST MUSCULOSKELETAL CONDITIONS OR INJURIES: A SYSTEMATIC REVIEW WITH DATA FROM 5-MILLION WOMEN

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Introduction Half of young women start combined hormonal contraceptive (CHC) use for non-contraceptive reasons including ‘controlling’ their menstrual cycle to prevent injuries. These decisions should be evidence-based. This study assessed the association between CHC use and musculoskeletal tissue pathophysiology, injuries, or conditions.

Abstracts