PROSPECTIVE REGISTRATION OF COMPETITIVE SWIMMING INJURIES IN FLANDERS.

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Background: An important aspect in competitive swimming is the risk of injuries, which affects the performance of the athlete.[2] Several studies already discussed this risk.[1,4] Nevertheless, few clinical epidemiological studies provide a complete overview of all the injuries in competitive swimming.[1] In Flanders there are no data available on swimming injuries. The purpose of this study was to register injuries sustained in competitive swimming in Flanders.

Methods: One hundred and nine Flemish competitive swimmers (57 male, 52 female) were prospectively followed for both acute and overuse injuries during one year. Injuries were registered with the Blits Online Injury Diary. Exposure was measured by weekly exposure sheets; and injury incidence rate was expressed per 1000h. For the statistical analyses 95% confidence intervals (CI) and the relative risk were calculated. The One-Sample Kolmogorov-Smirnov test, Mann-Whitney-U test and Independent-Samples t-test were also used (p<0.05).

Results: Ninety-nine subjects completed the study, of which 60.6% sustained 1 or more injury. We found an incidence of 2.67 injuries/1000h [95%CI: 2.13–3.22] during the one-year period. Acute injuries (1.05 injuries/1000h [95%CI: 0.70–1.39]) were significantly more often caused by other sports than swim training itself. The age category ‘17-18 years’ had a significantly higher risk of acute injuries compared to the ‘15-16 years’. The risk for a shoulder overuse injury was significantly higher compared to all other overuse injuries (1.63 injuries/1000h [95%CI: 1.20-2.05]). The ‘muscle-tendon’ complex was significantly more often injured compared to the bone, the joint, the nerve or the bursa. Age, weight, height, BMI and exposure did not differ significantly between athletes with or without shoulder injuries.

Conclusions: These are the first available data that give an overview of both acute and overuse injury incidence of competitive swimming in Flanders. Injury incidence was comparable with the results of McFarland & Wasik.[3] Shoulder injuries are the most frequently seen, probably as a result of repetitive overload of muscle and tendon.[5] Further research is needed to determine specific risk factors and prescribe effective preventive measures in competitive swimming.

References

Keywords: Swimming, Epidemiology, Risk