Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

concussion are present. Improved adherence to IFAB and ICCS concussion guidelines is needed.

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Characteristics and assessment of potential concussive events in the English Premier League

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Background and aims

Sports-related concussion (SRC) incidence and management within the English Premier League (EPL) is poorly described. This study's objective is to determine the contextual factors surrounding SRC and the quality of subsequent assessment with reference to the International Football Association Board (IFAB) recommendations.

Methods

Trained reviewers identified potential concussive events (PCEs) throughout 60 matches of the 2019/2020 Men's EPL season, using a standardized protocol. Each PCE was analyzed for visible signs of concussion and circumstantial factors, as well as assessment incidence, duration, and return-to-play decision.

Results

Through 60 matches, 67 PCE incidents were identified (1.03 per match, 33.83 per 1000 match hours). The mandibular region was found to be the most frequently affected region of the head (34.3%, $n = 23$), with ball to head (17.9%, $n = 12$) being the most common mechanisms of injury. Furthermore, ball to head contacts were significantly associated with one of more signs of concussion ($x^2 = 8.79$, $p < 0.01$). Of the 67 PCEs, 30 (44.7%) were assessed on the sideline. However, 86.7% ($n = 26$) of sideline assessments were under 1 min duration. Thirty (44.8%) players sustaining a PCE displayed one or more signs of concussion. Of these, 20 (29.9%) were assessed by medical personnel. Only one (3.3%) player was permanently removed from play.

Conclusions

Unfortunately, players suffering PCE are occasionally assessed on the sideline. However, assessments are typically less than a minute in duration and rarely result in permanent removal from play despite the presence of visible signs of concussion. As such, PCE identification and management during matches remains insufficient with respect to international recommendations.

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Prognostic factors related to the risk of COVID-19 infection in MS patients

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Background and aims

It is still debated whether Multiple Sclerosis (MS) patients are at high-risk of COVID-19 because of their life style, disease- or treatments-associated immune alterations. We compared features of MS patients with COVID-19 infection (MS-COVID) to those of residency-, age-, sex- and treatment-matched MS controls (MS-NCOVID). Moreover, the severity of COVID-19 infection was assessed in MS-COVID patients and their cohabitants.

Methods

So far, we have enrolled 25 MS-COVID and 104 MS-NCOVID patients. Neurological examination, premorbid laboratory tests, anthropometric variables (height, weight and BMI), life-style habits (smoke, alcohol intake, diet), working-activity and living conditions (number of cohabitants, school-aged children) were assessed. COVID-19 severity was evaluated in terms of fever (magnitude, duration), radiological pneumonia and typical symptoms.

Results

Clinical and anthropometric features, life-style habits and living conditions were similar between MS-COVID and MS-NCOVID patients. However, they differed in terms of working activity, with lower rate of unemployment (7.1% vs 23.4%) and higher rate of team-working (61.5% vs 26.5%) in the MS-COVID group ($p < 0.01$). Furthermore, MS-COVID patients had lower premorbid vitamin D levels (31 vs 40 ng/ml $p = 0.048$) and higher neutrophils count (3803 vs 3182 cells/ul, $p = 0.046$). Disease course was similar between MS-COVID patients and their cohabitants with fever, ageusia and anosmia being the most common symptoms. Fever and radiologic signs of pneumonia were also comparable.

Conclusions

Working-activity, lower vitamin D levels and higher neutrophil count seem to be associated with the risk of COVID-19 infection in MS patients. The burden of COVID-19 disease was comparable between MS patients and their cohabitants.

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Epidemiology of Huntington's disease in Sardinia, Italy

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