transferred to a tertiary cardiology centre for electrophysiology studies. An ajmaline test was negative, although ventricular ectopics were noted. There were no ectopics elicited during electrophysiology studies. There was a suggestion of a subtle J wave on a number of her ECGs and intermittent short PR interval (figure 2), which would imply an early repolarisation syndrome such as J wave syndrome. Of note, during her stay in the coronary care unit, she developed intermittent tongue swelling and generalised urticarial rash which required treatment with steroids and antihistamines. She was transferred to a specialist centre, for further diagnostics including cardiac magnetic resonance imaging, electrophysiology studies and genetic screening for long QT syndrome. These investigations were all unremarkable, including a negative ajmaline test. A single chamber transvenous implantable cardiac defibrillator was inserted and she was discharged with beta-blockade.

Discussion

Polymorphic ventricular tachycardia, has a multitude of causative factors including QT prolonging drugs, cardiac ischaemia, underlying genetic arrhythmias such as and catecholaminergic polymorphic ventricular tachycardia (CPVT) and inherited sodium and potassium channel mutations, most notably, long QT syndromes and Brugada syndrome. It can also be as a result of early repolarisation syndromes such as J wave syndrome. Myocarditis has now been linked to the covid vaccine, with a generally benign course of illness observed. It is unclear in our case, whether an underlying genetic predisposition, in combination with the covid vaccine and medications which can cause prolonged QT intervals, provoked this episode of polymorphic ventricular tachycardia. This patient, had never observed cardiac symptoms including chest pain or palpitations, leading a very active lifestyle prior to this event. We suspect an underlying early repolarisation syndrome, as a potential precipitant of this cardiac arrest. There has been an estimated rate of 11.1 cases of anaphylaxis, per 1 million Pfizer-BioNTech Covid-19 vaccines. Cardiovascular compromise, due to anaphylaxis, is well described in the acute setting. This patient had symptoms of a prolonged allergic reaction to the vaccine, as noted by her continued allergic symptoms days after her initial anaphylaxis. This may have contributed to the development of cardiovascular collapse in this case.

On March 20th, 2022, the Irish Times featured the personal profiles of the successful Irish under 20 years team in the Six Nations contest against France, England, Scotland, Wales and Italy. The mean weight was 100 Kgs and 8/31 met the U.S. Center for Disease Control criteria for obesity with BMI >30 Kg/M2, (risk category 1,) theoretically putting them at risk for later life premature morbidity.

On reviewing the entire six nations forwards cohort, 61/94 had a BMI >30. No backs (n 89) had a BMI >30 and mean BMI was 26.4. All 33 prop forwards had a BMI >30 and 11 had a BMI >35, (CDC risk category 2.) 18/21 hookers had a BMI >30 whereas 2/20 locks had a BMI above 30 and 9/32 back row forwards had a BMI >30.

Much of this weight gain is facilitated by ‘bulking up’ with high caloric intake with supplemental protein under medical and nutritionist supervision. All of these players would be contracted professional or academy members.

For comparison the average BMI for the all age Kerry Gaelic football team in 2019 was 24.7. Rafal Nadal and Roger Federer have BMIs at 24.8. The Liverpool FC team (2022), average BMI is 23.1.

The BMI has known limitations in predicting excess body fat in individuals and Athletes but has proved useful in epidemiological studies and in the clinical management of morbid obesity.

The marked discrepancy between front row forwards and backs does suggest that the BMI difference cannot all be attributed to by higher muscle mass alone. With under age players one has to ask what are the downsides, if any, of rapid weight gain at this age. It certainly points to a need for long term follow up for all high performance athletes using supervised protein supplementation and whose playing time weights exceed the norm for their age and height.