

JOURNAL ARTICLE

Does sports participation increase risk in patients with long QT syndrome? Results from a large French cohort

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Abstract

Aims

Sports practice, especially in competition, is usually restrained in patients diagnosed with long QT syndrome (LQTS). Although data are scarce, a low incidence of cardiac arrhythmic events (CAEs) during sports practice is reported. We aim to evaluate the incidence of CAE during sports practice in LQTS patients.

Methods and results

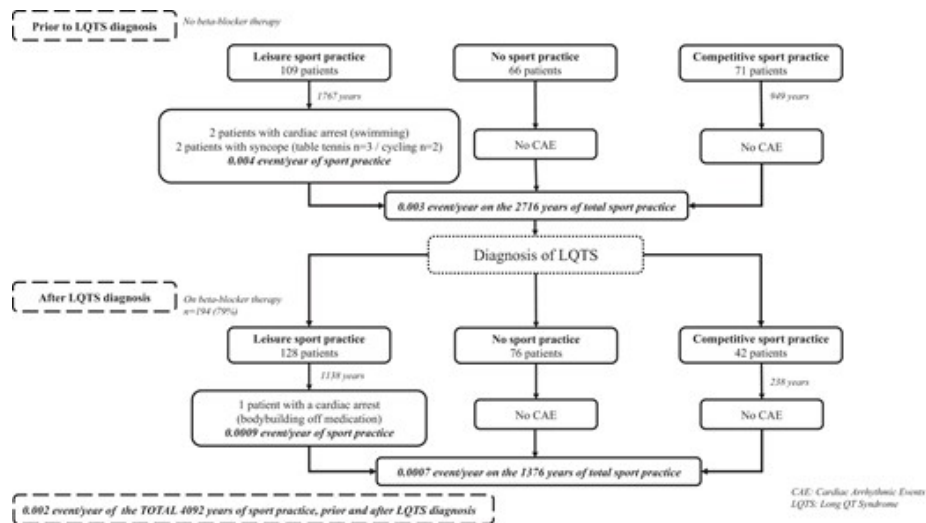
All consecutive patients above 18 years of age diagnosed with LQTS and prospectively followed at the referral centre for inherited arrhythmia syndrome received a survey to retrospectively assess their sports practice prior to and after the diagnosis of LQTS. Two hundred and forty-six patients were included (57% females). The median age was 43 years, and the median QTc was 457 ms (428; 482). Patients reported a total of 4092 years [1376 (34%) after diagnosis] of sports practice: 2905 (77%) [1138 (39%) after diagnosis] years of leisure practice and 1187 (23%) [238 (20%) after diagnosis] years of competitive practice. One hundred and eighty (73%) patients practiced sport prior to the diagnosis of LQTS and 170 (69%) after. Prior to the diagnosis, four (2%) patients presented a CAE during leisure sports practice and one during competition. After diagnosis, only one patient presented a

CAE, appropriately treated by an implantable cardioverter defibrillator discharge, in the context of beta-blocker non-compliance. The CAE event rate was 0.0007 events/year in the 1376 years of total sports practice after the diagnosis of LQTS.

Conclusion

After the diagnosis of LQTS, the occurrence of CAE is very low during sports practice, even in competitive practice. There was no CAE in patients properly treated with beta-blocker therapy with good compliance.

Graphical Abstract



Overview of cardiac arrhythmic events according to sport practice among Long QT syndrome patients.

Keywords: Long QT syndrome, Sport

Issue Section: Clinical Research