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BRUGADA SYNDROME AND JOB FITNESS: REPORT OF THREE CASES

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Summary
Introduction. Brugada syndrome is an inherited arrhythmogenic disorder predisposing patients to a high risk of sudden cardiac death. Specific guidelines on the health surveillance of affected workers are lacking.
Objective. By presenting three illustrative cases, we propose an interdisciplinary approach for the clinical and functional evaluation of Brugada syndrome workers, aimed at continuing the occupa-tional activity, by formulating appropriate prescriptions and limitations.
Materials and methods. The subjects were investigated with an interdisciplinary protocol includ-ing 24-hour Holter electrocardiography with modified precordial leads, pharmacological test with ajmaline, molecular genetic analysis, electrophysiological study with ventricular stimulation, risk stratification, and occupational medicine evaluation.
Results. The first case is a female 42 year-old company manager with positive ajmaline test and CACNA1C gene mutation (judged fit for the job with limitations regarding work-related stress); the second is a male 44 year-old welder with positive ajmaline test, SCN5A gene mutation, and associated OSAS (obstructive sleep apnea syndrome), who was advised to refrain from night shifts and driving company vehicles; the third subject is a male 45 year-old electrical technician with inducible ventricular tachyarrhythmia, who was implanted with a biventricular cardioverter defi-brillator, and therefore recommended to avoid exposure to electromagnetic fields and working at heights.
Conclusion. Patients with Brugada syndrome may come to the attention of the occupational physi-cian. In this circumstance, the collaboration with an expert cardiologist allows to define the func-tional capabilities and the arrhythmogenic risk, and to formulate the judgment for job fitness.
Keywords: arrhythmia, sudden cardiac death, electrocardiography, genetic analysis, work fitness