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## CARDIOVASCULAR FLASHLIGHT

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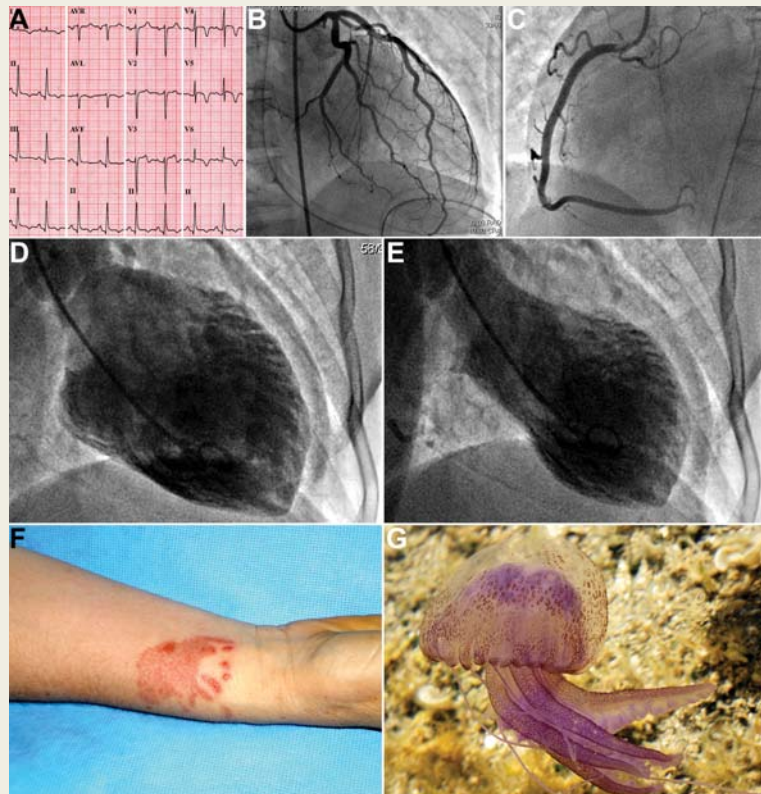
### Mediterranean jellyfish sting-induced Tako-Tsubo cardiomyopathy

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We report a case of a 53-year-old woman swimming in the southern Mediterranean Sea on the Calabrian coast that was suddenly stung on her right forearm by a mauve-pink jellyfish. She got extremely scared and while swimming back to the shore, she accused fatigue and an intense itch sensation. She lost consciousness on the beach as a consequence of a condition of pulseless electrical activity and was promptly resuscitated by a lifeguard through prolonged cardiopulmonary resuscitation. She was taken to the emergency room where she presented with chest pain and electrocardiographic signs of acute myocardial infarction (Panel A). Echocardiography demonstrated apical akinesia with severe left ventricular dysfunction [ejection fraction (EF) = 30%]. Thrombolysis was carried out but the chest pain and ST-elevation persisted, so the patient was transferred to our Division to undergo urgent coronarography that showed normal coronary artery tree in complete absence of any detectable stenosis (Panels B and C). Left ventricular angiogram demonstrated mid-ventricle and apical ballooning with reduced EF (31%) (Panels D and E). The jellyfish sting had caused an evident erythematous topical lesion (Panel F). After 7 days, the patient was discharged being completely asymptomatic with an improved EF (44%).



Previous reports described cases of mid-ventricular stress cardiomyopathy secondary to 'Irukandji Syndrome'. The latter is induced by the Australian *Carukia barnesi* jellyfish sting and is associated with excess endogenous catecholamine release. In the present case, our patient was attacked by *Pelagia Noctiluca* (Panel G, adapted from <http://commons.wikimedia.org/wiki> © Hans Hillewaert/CC-BY-SA-3.0), a small jellyfish, whose number has recently disproportionately grown in the Mediterranean Sea. Of course, an association between the *P. Noctiluca* venom and a direct pharmacophysiological effect on the myocardium is tempting but remains just speculative. Indeed, in this case, the trauma following the jellyfish sting and the subsequent near-drowning situation may be enough to cause the stress cardiomyopathy. Despite that to our best knowledge, this is the first case of Tako-Tsubo cardiomyopathy induced by a common Mediterranean jellyfish.