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Selective sparing of Purkinje fibres with pulsed-field myocardial ablation

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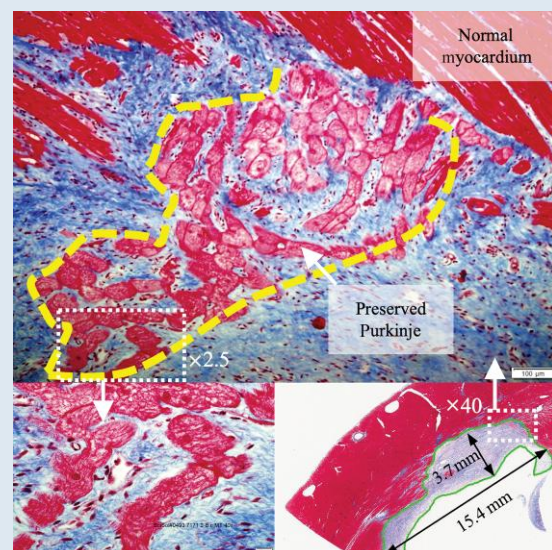
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The effect of pulsed fields on the conduction system has not been well characterized. Selected lesions ($n = 26$) from four swine ventricles were submitted as part of a dosing study after bipolar, biphasic ablation using a multielectrode catheter (Faraflex, Farapulse Inc.) that delivers, microsecond pulses (2.2 kV)—four applications/site were applied. Histology after 4 weeks revealed a single image of viable Purkinje fibres (PjF), despite the ablation of adjacent cardiomyocytes as evidenced by fibrosis surrounding the PjF (Panel). The sparing of PjF seen, although a solitary finding, in this study may suggest a lower susceptibility than cardiomyocytes and requires further confirmatory studies.

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Conflict of interest: V.Y.R. hold stock options in Farapulse, Inc. J.S.K. serves as a consultant to Farapulse. The other authors report no conflicts.



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