patients with heart failure[4],

So how can we increase

Result 3 – RT increases levels of

Firstly, the translation of data derived from the murine model used to human cardiac electrophysiology is debatable. For example, there was an increase in connexin 43 (a component of the cellular gap junction) in mice following RT, but there was no significant change in connexin 43 levels post RT in the human heart. In addition, the authors waited just two weeks post LAD ligation in their murine model of myocardial infarction (MI) before analysis, much less than the window typically used before re-assessment of ventricular function post MI in humans.

Secondly, adverse effects of RT need consideration. Data from cancer survivors hax0 reW*nBT/F2 11.064 Tf1 0 0 1 204.65 20 0 1 211.85 368.33 Tm0

Broader Context and future direction

As survival following MI improves, the incidence of VT is likely to increase. It is therefore important that we establish safe, rapid, and affordable means of treatment. RT presents an exciting opportunity that may mitigate the need for drug therapy, implantable cardiac devices, and catheter ablation. This is especially significant in view of the increased risk of catheter ablation in frail patients[29] in the setting of an ageing population.

The capacity of the UK radiotherapy service should also be explored – particularly during recovery from the COVID-19 pandemic. If this were to become routine therapy, the cardiology community will benefit from the expert input of our clinical oncology colleagues in service development and treatment planning.

Whilst still in experimental development and lacking long-term safety data, there is an established national multidisciplinary group (UK SABR Consortium) that provides expert consensus, quality assurance and liaison with clinical commissioners to further develop SBRT in the UK.

Lastly, there are four significant areas of inquiry going forward – many under current active investigation.

1. Limited data in the field concerning RT for human non-ischaemic re-entrant VT.
2. Prolonged survival following RT results in limited post-mortem sample availability– reinforcing the need for large animal, appropriately powered preclinical studies to further elucidate mechanisms.
3. Minimal effective dos00804751P /AM*nB00008047 0 540 780 reW*nBT/F2 11.04 Tf4MC /P <</MCID 176>>