

CRTD with plug- Is it worth it ?

Nof, E¹; Asher, E¹; Abu Shama, R¹; Goldenber, G²; Luria, D¹; Gurevitz, O¹; Bar-Lev, D¹; Bachar, S¹; Eldar, M¹; Glikson, M¹

¹Sheba Medical Center, Ramat Gan, Israel; ²Meir, Kfar Saba, Israel

Background: While many patients with low EF have indications for ICD implantation, indications for cardiac resynchronization therapy (CRT) include in addition to low LVEF, a broad QRS and NYHA class 3 or 4. Since congestive heart failure is a progressive disease, it is a common practice in Israel to consider implantation of an ICD with an option to be upgraded to CRTD (CRT-D with LV plug) in pts implanted with ICD and low EF who do not fulfill CRTD criteria at the time of implantation. We sought to investigate whether and which patients benefit from implantation of such a device.

Methods: One hundred thirty two consecutive pts implanted with a CRT-D with LV plug device, were included in the present study. NYHA class, QRS duration and LVEF were recorded at the time of device implantation. Patients were divided into 2 groups: those who did not undergo an upgrade during the follow up period (group A) and those who underwent an upgrade by adding an LV lead (group B).

Results: Only 7/132 (5%) were upgraded by addition of an LV lead during an average follow up (FU) of 26± 18 months. All patients included had a LVEF < 35%. The basic NYHA class and LVEF were similar between patient groups A and B (1.9± 0.7 vs. 2.1± 0.4 and 25± 6% vs. 23± 9% respectively; p= NS). However QRS duration was shorter in patient group A compared to B (123± 25ms vs. 182± 48ms respectively; p< 0.001). None of the patients who underwent an upgrade of their device had a narrow QRS or were in NYHA class 1 at baseline.

Conclusions: Despite the common use of CRTD with plugs, the incidence of upgrading to full CRT-D is relatively low. Pts with a narrow QRS or NYHA class 1 do not undergo an upgrade and therefore it seems reasonable to implant only an ICD in these patients even if they have other partial indications for CRT.