

regarding the long term efficacy, sensitivity and stability of atrial sensing as the atrial sensing electrodes of the VDD pacing lead is floating in the right atrium and not fixed to the endocardium as in the atrial lead of DDD pacemakers, and as a result changes in the posture, activity, ect. can cause changes in the atrial sensing (12, 14).

Despite the decrease in the atrial signal amplitude the VDD pacing, adequate AV synchrony was maintained in almost all patients with programming changes to maintain atrial sensing. In addition, patient selection resulted in a very low incidence of chronic atrial fibrillation or sinus node disease, a context where atrial based pacing may be beneficial in both sensing and pacing. This finding is in keeping with the previous observation by Anderson et al, who found little association of sinus node disease with AV block in patients undergoing atrial based pacing for sinus node disease who presented with intact AV node function (8, 10).

Longer term follow up may have permitted further detection and development of sinus node disease and atrial fibrillation, potential limitations of VDD pacing. Conversely, longer follow up is likely to detect "degenerative" lead related problems, including the potential need for lead replacement or extraction. The latter would have contributed to greater cost and complications in the DDD group (7, 9, 11).

Increased utilization of VDD pacing could realize significant cost savings. Although there is minimal difference in generator capabilities and cost between pacing modes, reduced lead costs may contribute to significant savings (6, 13).

References

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