Long-term Reliability of Atrial Unipolar Screw-in Leads

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Nakazato ET AL.: Long-term Reliability of Atrial Unipolar Screw-in Leads. Aims: The purpose of this study is to clarify the long-term reliability of atrial unipolar screw-in leads. Methods and Results: We retrospectively studied the long-term reliability of atrial unipolar screw-in leads that were implanted from 1981 to 2000 at our hospital. Of the 385 leads used, fractures and/or insulation failures were observed in 10 leads (2.6%), all of which were implanted using the subclavian vein puncture approach. For leads implanted in the period from 1981 to 1985, the incidence of fracture was higher at 15.2%. The overall survival rate was 98.7% over 5 years, 95.9% over 10 years, and 93.3% over 15 years. Lead fractures were observed only in polyurethane leads but not in silicon leads. The polyurethane leads used in the early era of pacemaker implantation might affect the overall lead reliability results. Conclusion: The overall reliability of atrial unipolar screw-in leads is satisfactory, but the subclavian vein approach should be avoided because fracture is a major cause of lead failure. (J HK Coll Cardiol 2003;11:4-10)

Key words: Atrial screw-in lead, lead failure, longevity, reliability, unipolar