Angiographic Follow-Up of Myocardial Revascularization Using the Vineberg Procedure Correlated with Intraoperative Imaging

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Introduction

The Vineberg procedure comprises implantation of the internal thoracic artery (ITA), without ligating the intercostal side branches, directly into the left ventricle muscle. Over the past 8 years, we have successfully used the Vineberg technique which was modified by the senior author[1], obtaining low morbidity and mortality rates and high graft patency rates[2], in more than 60 patients who were unable to undergo direct myocardial revascularization with ITA anastomosis to the anterior interventricular artery (AIA). In the majority of these unusual cases, the AIA was hypoplastic, with difuse atheromatous disease, which is incompatible with an endarterectomy procedure and direct revascularization or angioplastic surgery. As per current literature, the Vineberg procedure is a last resort therapeutic option[3-5]. In regard to angiogenesis, which is one of the justifications for the efficacy of the Vineberg procedure, the medical literature demonstrates the induction of angiogenesis in an ischemic human myocardium; other studies suggest a beneficial association of this procedure with angiogenic therapy[6-10]. We believe that in the near future, patients will be able to profit from this powerful treatment combination.

Key words

Angiography; myocardial revascularization; mammary arteries.

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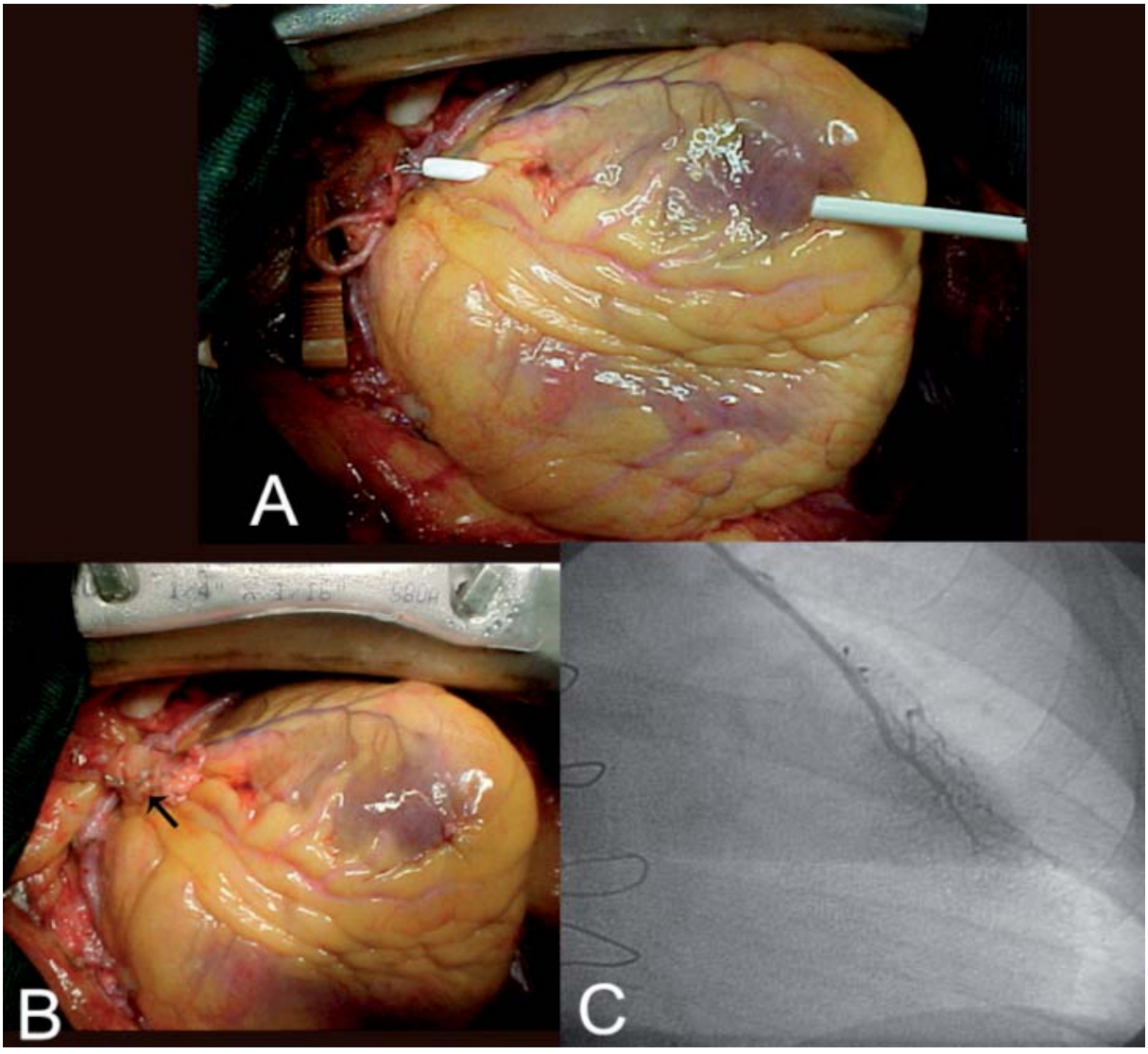

Fig. 1 - *A – Creation of a tunnel in the free wall of the left ventricle, parallel to the anterior interventricular artery, using a 10 French introducer sheath (procedure modified by the senior author); B – Skeletonized terminal portion of the internal thoracic artery (arrow) positioned in the free musculature of the left ventricle; C – Arteriographic study of the left internal thoracic artery implanted in the left ventricle muscle, 6 months after implantation, showing a patent implanted artery with blood flow to the coronary arteries. Posteroanterior cranial view;*

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