

Results of Bilateral Internal Mammary Artery (BIMA) Harvesting in Diabetic Patients Undergoing Coronary Artery Bypass Grafting Surgery (CABG)

M. Ibrahem Abdelhamed^{1} MD, Hassane Abdallah¹ MD, Ahmed Ibrahim¹ PhD, Elena Graso¹ MD, Haitham Altaani¹ MD, Amr Elprince¹ MD, Khalid AlKhamees¹ MD*

OBJECTIVE:

The accumulated evidence suggests the long-term superiority of using BIMA vs single mammary artery (SIMA) in CABG patients. However, the impact of harvesting both IMAs on sternal healing cannot be disregarded, especially with other risk factors, notably diabetes mellitus. This study aims to assess the feasibility of BIMA in diabetic patients undergoing CABG, bearing in mind the technical considerations that mitigate sternal wound dehiscence risks.

METHODS AND RESULTS:

We retrospectively analyzed the computer-based medical records for all CABG patients in PSCCH from January 2017 till January 2020. From 663 CABG patients, 341 patients had LIMA + SVG,

while

322 patients had BIMA + SVG. The BIMA group was further divided into diabetics (n=177) and nondiabetics (n=145). BIMA were skeletonized, and all sternums were closed using the same technique regardless of the operator. The mean follow up was 8±2 months. Among the BIMA group, nine patients suffered superficial sternal wound infection mandated extended outpatient wound care, with no deep sternal wound infection recorded in any patient.

CONCLUSION:

BIMA harvesting appeared to be safe in diabetic patients undergoing CABG. Careful patient preparation and surgical technique may have a significant role to prevent serious complications.

1- Prince Sultan Cardiac Center – AlHassa (PSCCH), Saudi Arabia.