Abstract Template

Title: NEW PROTOCOL IN RADIO-CEPHALIC VASCULAR ACCESS CREATION FOR HAEMODIALYSIS

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Arteriovenous fistulas (AVFs) are considered the better access for chronic HD due to higher patency rates and decreased risk of complications.

Design

The purpose of this study was to evaluate a new approach in radio-cephalic AV fistula creation in terms of safety, efficacy, patency, maturation rate and factors involved in AVF faillure.

Materials

A single center observational study of 81 cohort patients who underwent new radio-cephalic AVF access creation by new protocol (NP). This group has been compared with 95 case control patients treated by standard protocol

Methods

The groups were balanced for age, sex, atherosclerotic risk factors and co-morbidities. New Protocol provided: Preoperative artero-venous Duplex US, homocysteine level reduction, antiplatelet therapy, the minimum vein and arterial diameters age related, small arteriotomy, anastomotic angle no greater than 90 degree. Chi-Square tests for categorical data and time to event provided two-sided p values with a level of significance at 0.05 and all confidence interval (C.I.) at the 95% level.

Results

The median follow-up was 31,3 months Technical success was achieved in 97% of pre-NP group and in 99% of NP. The primary patency rate was 68.5% in Pre-NP (patients 30/95) versus 91.3% in the NP (patients 7/81), HR was 0.24 [95% IC: 0.15 – 0.56], p 0.0002. The cumulative secondary patency rates by survival curve analysis was 78% in Pre-NP (patients 21/95) versus 97% in the NP (patients 2/81), HR was 0.10 [95% IC: 0.08 – 0.45], p 0.0001. The maturation rate by survival curve analysis was 71.5% in Pre-NP (patients 27/95) versus 92.5% in the NP (patients 6/81), HR was 0.21 [95% IC: 0.13 – 0.52], p 0.0001.Hyperhomocysteinemia (HR: 0.39[0,2817 to 0,9910], p 0.04) is significantly associated with decreased patency rates on Cox univariate analysis in NP group only.

Conclusion

None categories predicted risk for maturation failure of AVF when rigorous preoperative planning, accurate surgical technique and good surgical skill are respected. Our New Protocol increases good outcome in terms of maturation rate in our institution, however further evaluations in a randomized clinical trials are needed.

III. Reference:

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1. Biography:

Roberto Gabrielli has completed his PhD at the age of 33 years from Sapienza University after specialization in Vascular Surgery

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