SUPPLEMENT 1

Complications and lymphedema assessment

Surgical complications were categorized by Clavien – Dindo classification (1) and evaluated in the first 30 days of follow-up. The lymphedema assessment was performed through clinical assessment (physical examination by the researcher or surgeon) and lower limb perimetry. Perimetry was performed by the same professional that measured the lower limbs' diameter with a flexible tape, starting from the heel line with the floor, and superiorly every 10 cm with the patient naked and standing. Volumetry was calculated by truncated cone formula and considered altered after increase of 10% (2,3). Moreover, clinical examination consisted in edema evaluation, sensation of heaviness, characteristics of the skin, and clothes or shoes habit change. (4)

Severity of lymphedema was categorized according to the International Society of Lymphology reflecting clinical evaluation, inspection of lower limbs and patient report of symptoms. Briefly, stage I represents an early accumulation and regress with limb elevation. Pitting may occur. Stage II signifies that limb elevation alone rarely reduces tissue swelling and pitting is manifested. Stage III encompasses lymphostatic disease, with skin changes and absent pitting. (5)

Nevertheless, we considered weight gain as a confound factor for lymphedema diagnosis, where the increase in the Body Mass Index (BMI) increases measurements and consequently the volume of lower limbs. Therefore, the lower limb volume increase was not considered related to the weight gain when the Spearman correlation coefficient were -0.320 (p <0.001) and -0.223 (p= 0.011) between right and left legs measured at 6 and 12 months.

Surveillance and telemonitoring

During COVID-19 pandemic, from March 2020 to June 2020, the patients' follow-up were done remotely by telemonitoring. Total of 26 women had follow-up assessment
time at 1, 6, and 12 months by telemonitoring and succeeded in 23 (88.5%) of the cases. (6) After the favorable experience of telemonitoring, patients with a lack of appointments during pandemic, patients’ that did not meet the research follow-up visit window (±15 days) were evaluated by telemonitoring. A total of 37 (24.2%) QoL assessments were performed through telemonitoring and was mostly performed at 12 months follow-up (n=27; 17.6%).

With regard of lymphedema evaluation, we had a higher loss at 12 months, where 19 (12.4%) patients did not respond the QoL, and 66 patients (43.1%) did not undergo perimetry. We can rely this issue on the experience of QoL assessment by telemonitoring. Sixty-eight (44.7%) women did not have adjuvant treatment, leading to less frequent hospital visits and therefore less opportunity lower limbs perimetry measurement. Yet, loss of hospital follow-up was identified in 10 (6.5%) patients and only one patient did not have any QoL evaluation in postoperative follow-up.

**Statistical analysis**

Simple frequencies, mean, median and standard deviation of all variables were calculated. Associations between categorical variables were analyzed chi-square test and Fisher's test when appropriate. Continuous variables were analyzed using the t test for independent samples. When the normality assumption was violated, we used the nonparametric Mann-Whitney test. For correlation analysis between the BMI difference and volume difference, we used Spearman’s s. QoL scores were analyzed following the EORTC manual (7,8) Logistic regression were used for risk assessment and factors of interest were adjusted in multivariate analysis, with odds ratio (OR) for relative risk for the outcome considering a 95% confidence interval (CI).

The volume of the perimetry was used the truncated cone formula to transform the measurements into volume. A 10% increase was used as a reference as the value of volume increase between the moments from the measurement of the volume of the limb considered in the evaluation of the pre-surgical moment.(9) The analyses were performed with SPSS 25.0.0.1 (IBM Corporation, 2019). For all tests, p<0.05 was significant.
REFERENCES


8. Scott NWFMANK. EORTC QIQ-C30 Reference Values. 2008 Jul;