ASO Visual Abstract: Objective Assessment of Postoperative Morbidity following Breast Cancer Treatments with Wearable Activity Monitors—The “BRACELET” study

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Funding: National Institute for Health Research (NIHR) Imperial Biomedical Research Centre (BRC). Award number: WSSS_P69945

Disclosure: No conflicts of interest to declare.

Upper limb functionality after breast and axillary surgery lacks quantitative morbidity measurement. Wearable activity monitors (WAMs) provide objective insights into upper limb function which may enable characterization of recovery of breast oncoplastic procedures and aid in the development of personalized rehabilitation (https://doi.org/10.1245/s10434-021-10458-4).
Objective Assessment of Post-Operative Morbidity following Breast Cancer Treatments with Wearable Activity Monitors - The “BRACELET” study

Prospective Observational study 2019-20

39 patients underwent breast surgery with or without axillary surgery

Continuous objective assessment of arm activity by wearable activity monitors (WAMs)

Regain of function (↑ activity) on operated side with plateau on day 7 post-op

Average disparity between op and non op side 13.9% (SD 2.3) p<0.005

Hand usage ratio did not return to their baseline even on day 14 after surgery

ALND patients showed lower post-operative activity levels compared to SLNB

DIEP patients had a greater reduction in post-operative activities than mastectomy alone

WAMs correlated well with upper limb function (DASH) questionnaire (R=-0.506, p<0.05)

Visual Abstract by @DrAmalinaBakri, @DrRMKwasnicki, K Dhillon, @khan_naairah, @OAGhandour, A Cairns, A Darzi, @DanielRLeff for @AnnSurgOncol