

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

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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



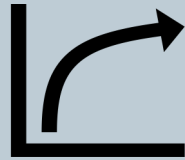
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patients
underwent breast
surgery with or
without axillary
surgery

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



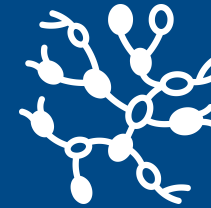
Regain of function
(↑ activity) on operated
side with plateau on day
7 post-op



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 ($R = -0.506$,
 $p < 0.05$)

Che Bakri et al. *Ann Surg Oncol*.

Visual Abstract by @DrAmalinaBakri, @DrRMKwasnicki, K Dhillon, @khan_naairah,
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