

## Long-term side effects and cosmetic outcome in a pool of breast cancer patients treated with intraoperative radiotherapy with electrons as sole treatment

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### ABSTRACT

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**Aims.** To evaluate late toxicity and cosmetic outcome after intraoperative radiotherapy using electrons (ELIOT) as sole treatment modality in early breast cancer patients.

**Methods.** A total of 119 patients selected randomly among 1200 cases was analyzed. Late toxicities were documented using the LENT-SOMA scoring system, cosmesis was evaluated with the Harvard scale, and a numeric rating scale was used to assess symptoms.

**Results.** After a median follow-up of 71 months, grade II fibrosis was observed in 38 patients (31.9%) and grade III fibrosis in 7 patients (5.9%). Postoperative complications (12.6%) did not correlate with late toxicity. Physicians and patients scored cosmesis as excellent or good in 84% and 77.3% of the cases, respectively. Patient satisfaction was higher than 90%.

**Conclusions.** In the study, ELIOT gives low and acceptable long-term toxicity. A longer follow-up and a larger number of patients are needed to confirm these promising results.

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**Key words:** intraoperative radiotherapy with electrons, late toxicity, partial breast irradiation.

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