



# E-Library

Find out on BrachyAcademy - E-Library



## The impact of brachytherapy boost for anal canal cancers in the era of de-escalation treatments

Leonel Varela Cagetti <sup>1, \*</sup>, Laurence Moureau-Zabotto <sup>2</sup>, Christophe Zemmour <sup>3</sup>, Marjorie Ferré <sup>4</sup>, Marc Giovaninni <sup>5</sup>, Flora Poizat <sup>6</sup>, Bernard Lelong <sup>7</sup>, Cecile De Chaisemartin <sup>7</sup>, Emmanuel Mitry <sup>8</sup>, Marguerite Tyran <sup>1</sup>, Amira Zioueche-Mottet <sup>9</sup>, Naji Salem <sup>1</sup>, Agnès Tallet <sup>1</sup>

**ABSTRACT PURPOSE:** To analyze clinical outcomes of high-dose-rate (HDR) interstitial brachytherapy boost (ISBT) after external beam radiation therapy (EBRT) or chemoradiotherapy (CRT) for the treatment of anal canal cancers (ACC). **METHODS AND MATERIALS:** A total of 78 patients with ACC were treated at our institution by ISBT. Local Control (LC), disease-free survival (DFS), overall survival (OS), colostomy-free survival (CFS) and toxicity rates were analyzed. **RESULTS:** With a median followup (FU) of 59.8 months (95% CI [55.8–64.2]), six (7.7%) local recurrences with 2 patients (2.6%) having persistent disease at 3 months were observed. The 5-year rate of LC for the entire population was 92% [83–96%]. The 5-year DFS rate was 86% [76–93%]. The 5-year OS was 96% [88–99%]. In the univariate analysis, chemotherapy was significantly associated with morbidity grade  $\geq 2$ . Late digestive toxicity grade  $\geq 3$  was reported in 8.9% patients, 1 patient underwent colostomy due to toxicity. The 5-year CFS rate was 88% [79–94%]. **CONCLUSIONS:** HDR interstitial brachytherapy boost provide excellent rates of tumor control and colostomy-free survival with a favorable profile of GI toxicity. Continence in anal cancer survivors is a challenge and the boost technique must be discussed in a multidisciplinary approach as part of de-escalation treatments. ©2023 American Brachytherapy Society. Published by Elsevier Inc. All rights reserved.

*Keywords:* Anal cancer; Brachytherapy; Boost; Chemoradiation; Colostomy-free survival; High-dose-rate; Fecal incontinence

[LINK TO ABSTRACT](#)