# Saudi Oncology Society clinical management guideline series

## Anal canal cancer 2014

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nal canal cancer is a rare cancer both world-wide and in the Kingdom of Saudi Arabia (KSA). In 2010, a total  $\Pi$ of only 27 cases were diagnosed in KSA, 18 males and 9 females representing 0.3% of all cases diagnosed in the Saudi population. The age standardized rate was 0.3/100,000 for males and 0.2/100,000 for females.

The evidence adopted in these guidelines is rated at 3 levels: 1) Evidence level (EL)-1 (highest level) evidence from phase III randomized trials or meta-analyses; 2) EL-2 (intermediate-level) evidence from good phase II trials or phase III trials with limitations; and 3) EL-3 (low-level) from retrospective or observational data and/or expert opinion. This easy-to-follow grading system is convenient for the reader and allows accurate assessment of the applicability of the guidelines in individual patients.<sup>2</sup>

All cases of anal cancal cancer should preferably be seen or discussed in a multidisciplinary form.

## Pre-treatment evaluation

- 1.1 History and clinical examination including inguinal lymph node palpation and rigid anoscopy
- 1.2 Blood count, liver, and renal function levels
- 1.3 Chest x-ray
- 1.4 Computed tomography (CT) scan of abdomen and pelvis
- 1.5 Magnetic resonance imaging (MRI) of pelvis
- 1.6 Fine needle aspiration of inguinal lymph nodes if clinically palpable
- 1.7 Human immunodeficiency virus testing in selected cases

#### 2. Staging

The American Joint Commission on Cancer (AJCC)- 2007 pathological staging system will be used.<sup>3</sup>

#### 3. Treatment

- 3.1 Localized disease (clinical stage T1-4, N0-1). Concurrent chemoradiotherapy<sup>4</sup> (EL-2)
  - 3.1.1 Chemotherapy: 5-fluorouracil and mitomycin C on day one and 29 of radiation therapy<sup>5</sup> (EL-1). Alternatively, oral capecitabine at a dose of 825 mg/m<sup>2</sup> twice daily on each day of radiation can be used<sup>6</sup> (EL-3)

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- 3.1.2 Radiotherapy: 45 Gy administered as 1.80 Gy per fraction in 25 fractions to the pelvis and inguinal node area + 5.4-9.0 Gy boost to the tumor bed<sup>7</sup>
- 3.2 Localized disease (clinical stage T<sub>any</sub> N2-3). Concurrent chemoradiotherapy<sup>8</sup>
  - 3.2.1 Chemotherapy: 5-fluorouracil and mitomycin C on day one and 29 of radiation therapy (EL-2). Alternatively, oral capecitabine at a dose of 825 mg/m² twice daily on each day of radiation can be used<sup>6</sup> (EL-3)
  - 3.2.2 Radiotherapy: 45 Gy administered as 1.80 Gy per fraction in 25 fractions to the pelvis and inguinal node area + 5.4-9.0 Gy boost to the tumor bed and inguinal node area
- 3.3 Metastatic disease. Palliative chemotherapy with 5-fluorouracil and cisplatin<sup>9</sup> (EL-2). Consider palliative radiation to local disease
- 3.4 Recurrent disease
  - 3.4.1 Local recurrence or persistent disease post-chemoradiotherapy:
    - 3.4.1.1 Persistent disease is defined as positive biopsy at 3 months from end of chemoradiotherapy
    - 3.4.1.2 Recurrent disease should be biopsy proven
    - 3.4.1.3 Anal recurrence. Consider abdominoperineal resection (EL-2)
    - 3.4.1.4 Inguinal lymph nodes recurrence. Consider groin lymph node dissection (EL-3) or groin irradiation if not carried out earlier ± chemotherapy: 5-fluorouraciland mitomycin C<sup>11</sup> (EL-3)
  - 3.4.2 Distant recurrence: see section 3.3
- 3.5 Follow up.
  - 3.5.1 Every 4 months in the first year and every 6 months thereafter for 5 years, then annually with digital rectal examination and inguinal palpation (EL-3)
  - 3.5.2 CT scan of abdomen and pelvis annually for the first 3 years (EL-3)

## References

- 1. Saudi Cancer Registry. Cancer Incidence Report in Saudi Arabia 2010. Riyadh (KSA): Saudi Cancer Registry; 2014.
- 2. Jazieh AR; Saudi Lung Cancer Guidelines Committee. The lung cancer management guidelines 2012. *J Infect Public Health* 2012; 5 Suppl 1: S4-S10.
- 3. Edge SBD, Compton CC, Fritz AG, Greene FL, Trotti A, editors. AJCC Cancer Staging Manual. 7th ed. New York (NY): Springer-Verlag; 2010.
- 4. Bartelink H, Roelofsen F, Eschwege F, Rougier P, Bosset JF, Gonzalez DG, et al. Concomitant radiotherapy and chemotherapy is superior to radiotherapy alone in the treatment of locally advanced anal cancer: results of a phase III randomized trial of the European Organization for Research and Treatment of Cancer Radiotherapy and Gastrointestinal Cooperative Groups. *J Clin Oncol* 1997; 15: 2040-2049.
- Gunderson LL, Winter KA, Ajani JA, Pedersen JE, Moughan J, Benson AB 3rd, et al. Long-term update of US GI intergroup RTOG 98-11 phase III trial for anal carcinoma: survival, relapse, and colostomy failure with concurrent chemoradiation involving fluorouracil/mitomycin versus fluorouracil/cisplatin. *J Clin Oncol* 2012; 30: 4344-4351.
- Wan DD, Schellenberg D, Hay J, Lim HJ, Peixoto RD; BC Cancer Agency, editors. A comparison between 5-fluorouracil/mitomycin (FM) and capecitabine/mitomycin (CM) in combination with radiation (RT) for squamous cell carcinoma (SCC) of the anal canal. J Clin Oncol 2014; 32: 5s.
- 7. Mann T. Clinical guidelines using clinical guidelines to improve patient care within the NHS. Leeds (UK): Crown; 1996.
- 8. Das P, Bhatia S, Eng C, Ajani JA, Skibber JM, Rodriguez-Bigas MA, et al. Predictors and patterns of recurrence after definitive chemoradiation for anal cancer. *Int J Radiat Oncol Biol Phys* 2007; 68: 794-800.
- 9. Ajani JA, Carrasco CH, Jackson DE, Wallace S. Combination of cisplatin plus fluoropyrimidine chemotherapy effective against liver metastases from carcinoma of the anal canal. *Am J Med* 1989; 87: 221-224.
- Eeson G, Foo M, Harrow S, McGregor G, Hay J. Outcomes of salvage surgery for epidermoid carcinoma of the anus following failed combined modality treatment. Am J Surg 2011; 201: 628-633.
- 11. Flam M, John M, Pajak TF, Petrelli N, Myerson R, Doggett S, et al. Role of mitomycin in combination with fluorouracil and radiotherapy, and of salvage chemoradiation in the definitive nonsurgical treatment of epidermoid carcinoma of the anal canal: results of a phase III randomized intergroup study. *J Clin Oncol* 1996; 14: 2527-2539.

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