

Tumours of the anal canal: A retrospective study

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ABSTRACT

Background: Carcinomas of the anal canal are very rare clinical entities compared to the most common colorectal malignancies. As a result, little has been reported on their natural history and course.

Purpose: Herein we describe the experience of our hospital with anal cancer, in a quest of the incidence of the disease in the Hellenic population.

Material and methods: A 15-year retrospective study was conducted. We searched all cases of patients diagnosed with anal carcinoma in our hospital. Medical records and histological examination results were all thoroughly registered and evaluated.

Results: On the whole, 101 patients were diagnosed with a malignant tumour of the anal canal. Among them, 46 cases involved anal adenocarcinoma, 44 cases were squamous cell carcinomas and in five cases Bowen disease was identified. Three melanomas, one GIST stromal tumour, one case of Paget disease and one Low-grade Squamous Intraepithelial Lesion (LSIL), were recognised as well.

Conclusions: It seems that, in our hospital, the frequency and prevalence of anal adenocarcinoma is increased compared to the results from international data. Therefore, more studies involving larger series of patients are required in order to shed further light on the true incidence of anal cancer and its subtypes in the Greek population.

Key Words: Anal canal; tumour; retrospective

INTRODUCTION

Anal canal carcinomas consist of some rare malignant neoplasms. They represent a percentage of 5% of all anorectal neoplasms and a percentage of 1.5% of all gastrointestinal tumours [1–4]. They are rare compared to colon carcinomas. Anal canal malignancies usually involve people who are 70-year-old or more, with a slight predominance in female patients according to current literature [5–8]. These malignancies are also associated

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with significant morbidity. However, because of the rarity of this clinical entity, there is no sufficient number of studies referring to the natural history and treatment of the disease in the current data [9–12].

Purpose

The aim of this study was to present our hospital's experience in the diagnosis and management of anal canal cancer and register the exact incidence of the disease among the patients visiting a tertiary hospital. It was also intended to examine what are the most common histological types observed in this Hellenic group.

MATERIAL AND METHODS

We conducted a 15-year-old, monocentred, retrospec-

tive study of the patients admitted to our hospital due to anal cancer. Therefore, we reviewed histopathological records, patient's data, surgical records, in a 15-year time period. We registered and evaluated carcinomas located in the anal canal, histological subtypes, epidemiographic data, such as gender and age, clinical features and the treatment patients received. It is also worth noticing that anal canal tumours were defined as those located in the anatomical area extending from below the ano-rectal junction down to the anal verge according to the World Health Organization [13]. Furthermore, tumours were also categorised as anal and not as rectal when the epicentre of the tumour was in a distance less than 2 cm from the dentate line according to the American College of Pathologists [13, 14].

RESULTS

From 2005 to 2020, in a 15-year period, 101 cases of anal cancer were diagnosed. Among the 101 patients, there was a certain female predominance. Fifty-seven women were diagnosed with malignant anal tumour. On the other hand, the male patients were 44. The age at the time of diagnosis ranged from 30 years to 92 years old. Symptoms included rectal bleeding, pain, anal mass sensation and change in bowel habits. In all cases, the malignancies were identified by biopsies and confirmed by the histopathological examination of the specimens. The histological results revealed 46 cases with anal adenocarcinoma. This referred to a 45.5% percent of the whole amount of anal malignant neoplasms. The age was between 61 and 88 years old. As far as gender was concerned, 25 patients were men and 19 were women. There were also 44 recognised cases with squamous cell carcinoma (43.5%). In addition, there were five patients with Bowen disease, one patient with lesions compatible with Paget's disease, one case of gastrointestinal stromal tumour GIST, three cases of melanoma and one case of LSIL. The majority of the patients were in advanced stages when the disease was diagnosed and confirmed histologically. All the patients received surgical treatment. Chemoradiation was also applied whenever it was indicated.

DISCUSSION

The rarity of anal canal cancer compared to the more frequent colorectal carcinomas explains why there is limited bibliographic data coping with this clinical and pathological entity [12].

However, the literature data suggest that the disease usually involves men of 70-year-old or more and that the most common histological type is the squamous cell car-

cinoma [2, 3], while the anal adenocarcinoma accounts for 3%–9% of all anal cancer tumours [15, 16]. In another report, the one of Myerson et al. [13], it is derived from the National Cancer Database Report that anal adenocarcinoma accounts for 16% of the anal cancer in North America. On the contrary, in our series concerning the Hellenic population, it was indicated that anal cancer is predominant in female elderly patients. Moreover, a very high percentage of anal adenocarcinoma has been registered (45.5%) compared to the one that is indicated in the international registries. Reviewing literature, we noticed a similar conclusion to ours only in Wong et al. [1] study where the 50, 8% percentage of all anal carcinomas were referring to anal adenocarcinoma. The study was searching for the prevalence of the anal malignancies in the Asian population.

As a result, a question arises as far as the frequency of the histological subtypes of anal cancer is concerned and whether prevalence of each subtype is different between various populations. We also wonder whether there is a correlation between genetic and racial factors and the high prevalence or not of anal adenocarcinoma in some racial people groups.

Larger series are required to be studied in order to define the exact incidence of the disease and its histological subtypes in various populations, as well as determine the exact aetiological factors.

A comparison of our results with the ones from the rest of the Mediterranean population might give us useful information for the epidemiology, natural history and prognosis of the disease in this area.

Conflict of interest: *The authors declare that they have no conflict of interest related to the publication of this article. They declare that they haven't received any kind of funding or grants related to this study.*

Ethical approval: *The authors declare that the study has been performed in accordance with the ethical standards laid down in the 1964 declaration of Helsinki.*

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