

Clinical characterization and treatment patterns in patients with metastatic hormone-sensitive prostate cancer at three third-level centers of the Mexican Institute of Social Security: A retrospective cohort study

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Background

- In Latin America, prostate cancer (PC) is the most common cancer^{1,2} and the leading cause of cancer-related death among men²
- The incidence and disease burden of de novo metastatic PC is higher in Latin America than in other global regions¹
- Several factors contribute to the higher incidence rate, including advancing age, variable access to healthcare, advanced disease presentation at diagnosis, differences in diagnostic and registration practices, and limited public awareness³
- Epidemiological data are essential for developing screening protocols and management strategies for patients with PC in Mexico⁴
- Despite efforts in select institutions in Mexico to register and organize data on patients with PC,⁴ epidemiological data are scarce^{1,4}

Methods

Study design

- Retrospective, observational cohort study, examining paper and electronic health records of patients diagnosed with PC between January 1, 2017, and June 30, 2023
- All statistical analyses were descriptive, with data reported as percentages and means

Study population

- Adult (≥18 years) patients with newly diagnosed or recurrent metastatic hormone-sensitive PC (mHSPC)
- The patients were treated at one of the three tertiary hospitals of the Mexican Institute of Social Security and received ≥1 follow-up consultation after the index date (date of mHSPC diagnosis)
- Criteria for mHSPC diagnosis and study inclusion:
 - ICD-10 code C61 or D40⁵
 - Inclusion of “prostate cancer,” “adenocarcinoma of the prostate,” or “malignant tumor of the prostate” in patient charts

Results

PATIENT CHARACTERISTICS

- In total, 454 patients’ charts were reviewed: 246 (54%) did not have metastatic disease, 42 (9%) had metastatic CRPC (mCRPC), and 166 (37%) had mHSPC (**Figure 1**)
 - The latter subgroup formed the basis for this study
- Of the 166 patients (mean age [standard deviation (SD)], 69.5 [8.3] years) (**Table 1**), 108 patients (65%) were newly diagnosed; in the remaining 58 patients (35%), non-metastatic hormone-sensitive PC (nmHSPC) had progressed to mHSPC (**Figure 1**)
- 117 patients (71%) had Gleason score ≥8, 127 patients (77%) had evidence of primary tumor (T1–T4), 33 patients (20%) had confirmed nodal spread (N1), and 108 patients (65%) had confirmed metastases (M1) at the time of diagnosis (**Table 1**)

TREATMENT PATTERNS

- Patients received the following treatments: gonadotropin-releasing hormone (GnRH) agonist (n = 149), GnRH antagonist (n = 4), orchiectomy (n = 3), androgen receptor pathway inhibitor (ARPI) (n = 48), and chemotherapy (n = 31); unreported (n = 7) (**Figure 2**)

TREATMENT DISCONTINUATION

- In 35 patients, as guided by their physicians, treatment was discontinued due to biochemical progression (n = 7), radiological progression (n = 2), radiological and biochemical progression (n = 2), major adverse events (n = 2), loss of response (n = 3), death (n = 2), or progression due to an unspecified cause (n = 17) (**Figure 3**)

ADVERSE EVENTS

- During the study period, 10 adverse events and 3 cancer-related deaths were reported (**Table 2**)

Figure 1. Number of Patient Charts Reviewed

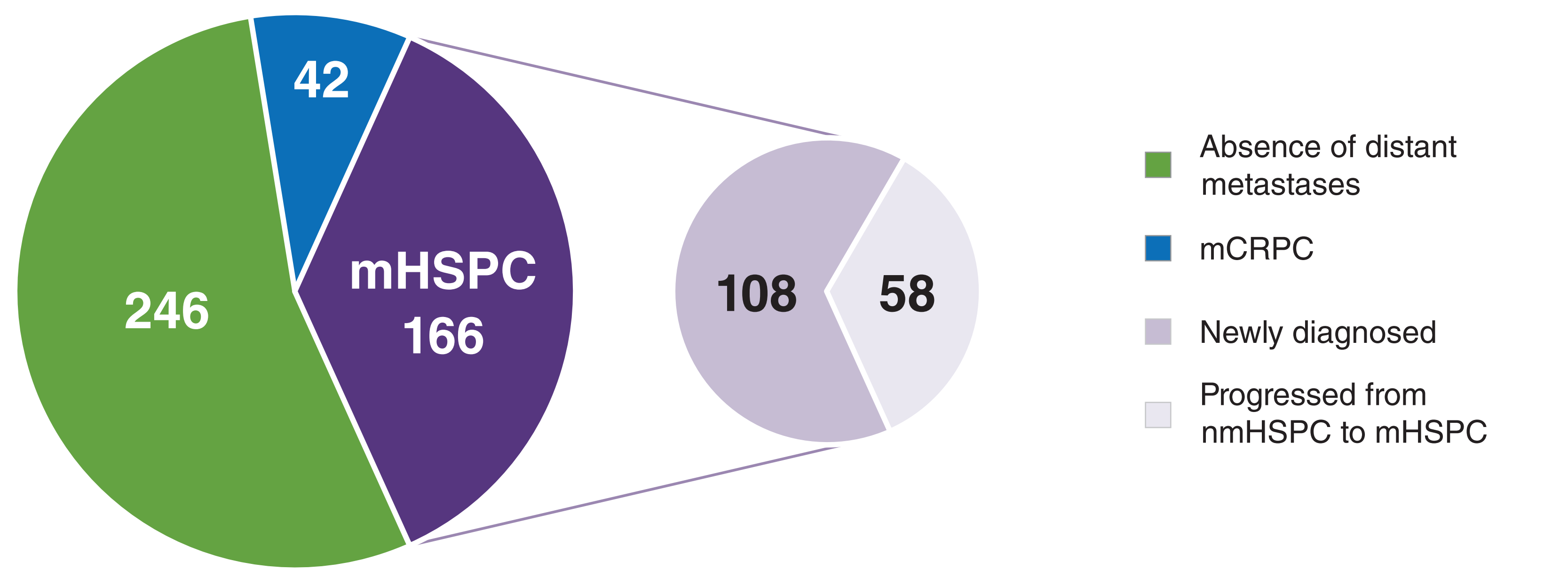


Table 1. Baseline Patient Characteristics at Diagnosis

Parameter	N = 166
Patient age, years; mean (SD)	69.5 (8.3)
Gleason score, n (%)	
6	9 (5)
7	37 (22)
8	51 (31)
9	53 (32)
10	13 (8)
Unknown	3 (2)
Disease staging T, n (%)	
T1	39 (24)
T2	51 (30)
T3	25 (15)
T4	12 (7)
TX	40 (24)
Disease staging N, n (%)	
N0	85 (51)
N1	33 (20)
NX	48 (29)
Disease staging M, n (%)	
M0	43 (26)
M1	108 (65)
MX	15 (9)

Abbreviations: M0, absence of distant metastases; M1, distant metastases; MX, distant metastases cannot be assessed; N0, no nodal involvement; N1, nodal involvement; NX, nodal involvement cannot be assessed; T1/T2/T3/T4, size and/or extent of primary tumor; TX, primary tumor cannot be assessed.

- Radiologic confirmation and stage IV/metastatic disease diagnosis by an oncologist/urologist
- Hormone sensitivity with/without prior androgen-deprivation therapy (ADT) (having stopped ADT ≥12 months before confirmation of metastatic disease)
- Criteria for study exclusion:
 - Stage of PC could not be determined
 - Evidence/diagnosis of castration-resistant PC (CRPC)
 - Defined as testosterone at castration levels (≤50 ng/dL) and one of the following: prostate-specific antigen (PSA) >2 ng/dL plus two rising PSA levels at an interval of ≥7 days and an increase of >50% in the second rising PSA value from the lowest value and/or radiographic progression
 - Previous treatment for mCRPC
- Diagnosis of other primary forms of cancer or incomplete patient charts
- Patients were stratified using the tumor, node, metastasis (TNM) staging system for PC (8th ed)
- Only metastatic disease (i.e., any T or N and distant metastases [M1]) was considered at baseline

Figure 2. Summary of Treatment Types

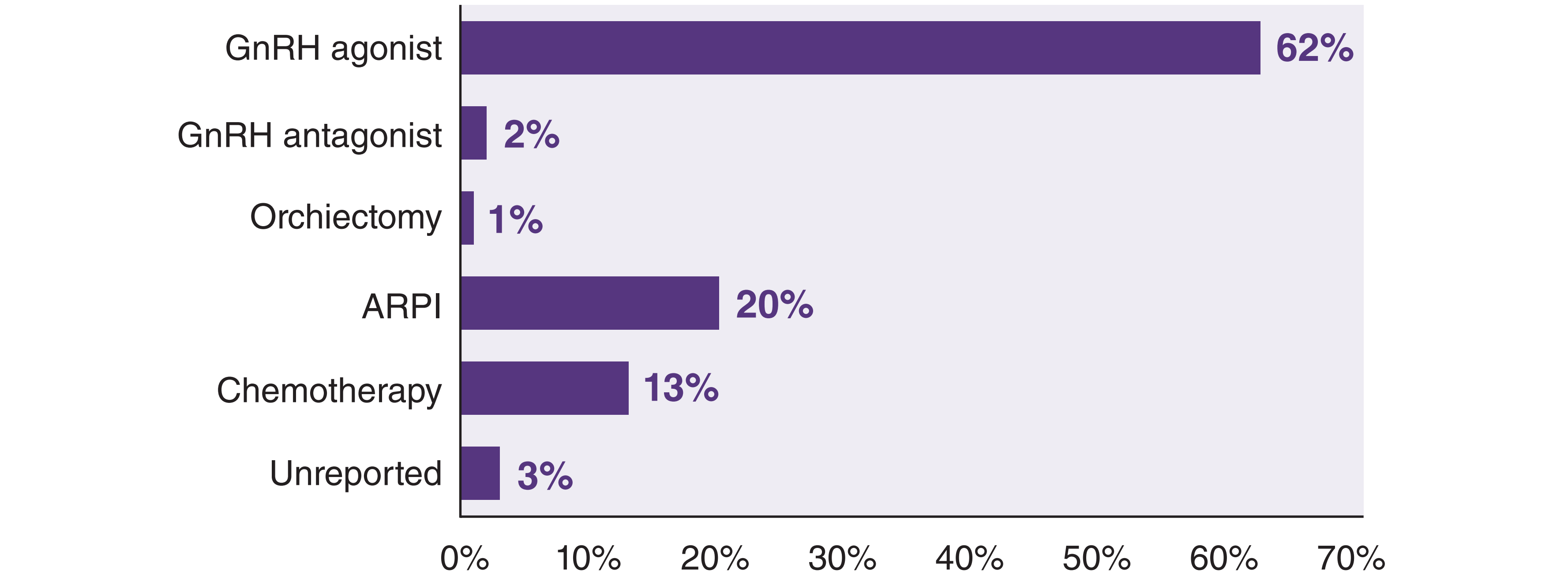
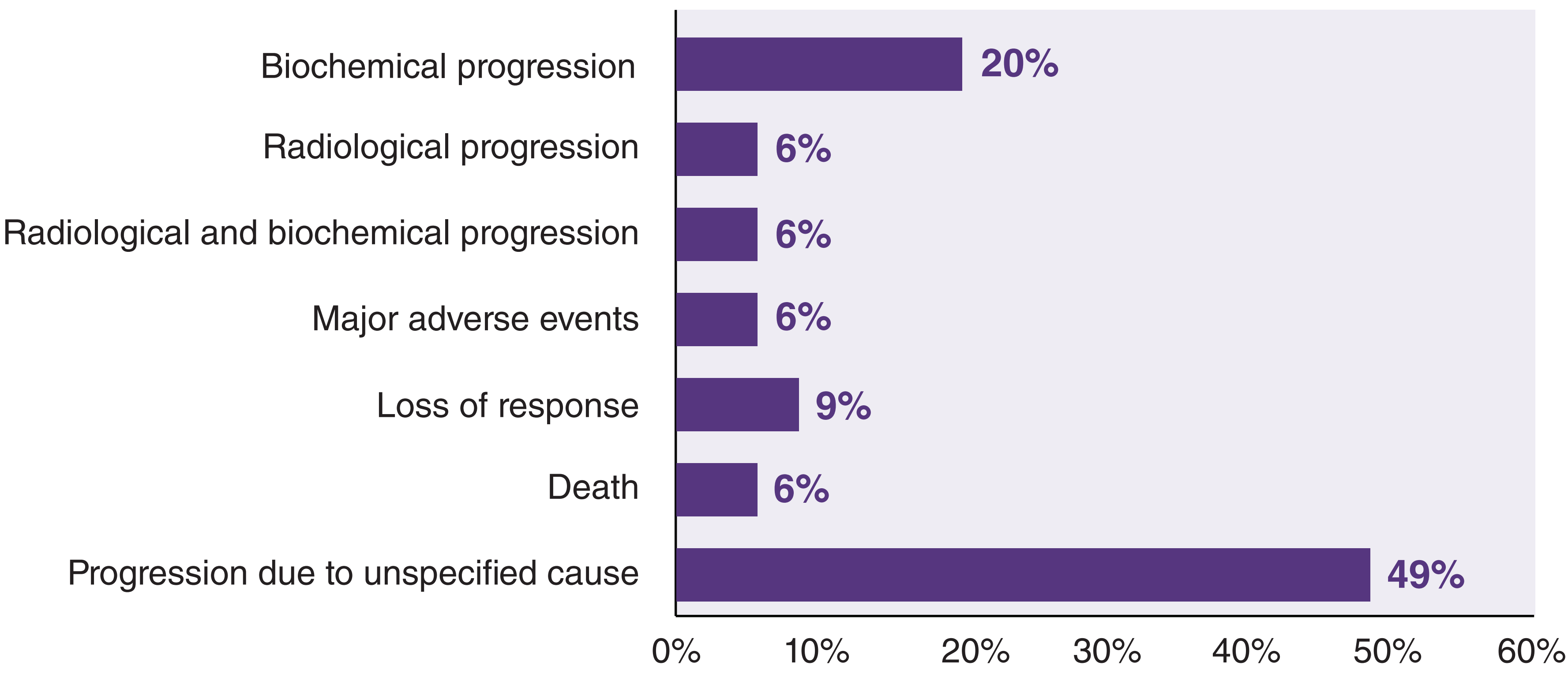


Figure 3. Reasons for Treatment Discontinuation^a



^aPercentages do not add up due to rounding.

Table 2. Adverse Events^a

Adverse events	Number of patients
Grade 3	4
Grade 4	5
Unspecified	1
Deaths due to cancer	3

^aThese adverse events were reported by physicians at the time of examination, but there was a paucity of data in clinical records regarding the description of adverse events.

References
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