

# Characterization of a population (312 patients) with Burning mouth syndrome

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## INTRODUCTION

Burning mouth syndrome (BMS) is a burning sensation of the oral mucosa in the absence of local or systemic predisposing factors. BMS has a negative impact in the life of patients. Prevalence varies between 0.7 - 12.2 %.

The study (observational, retrospective, transversal and comparative) was designed to characterize a population with BMS in a Oral Medicine Clinic in Portugal, comparing it to other studies.

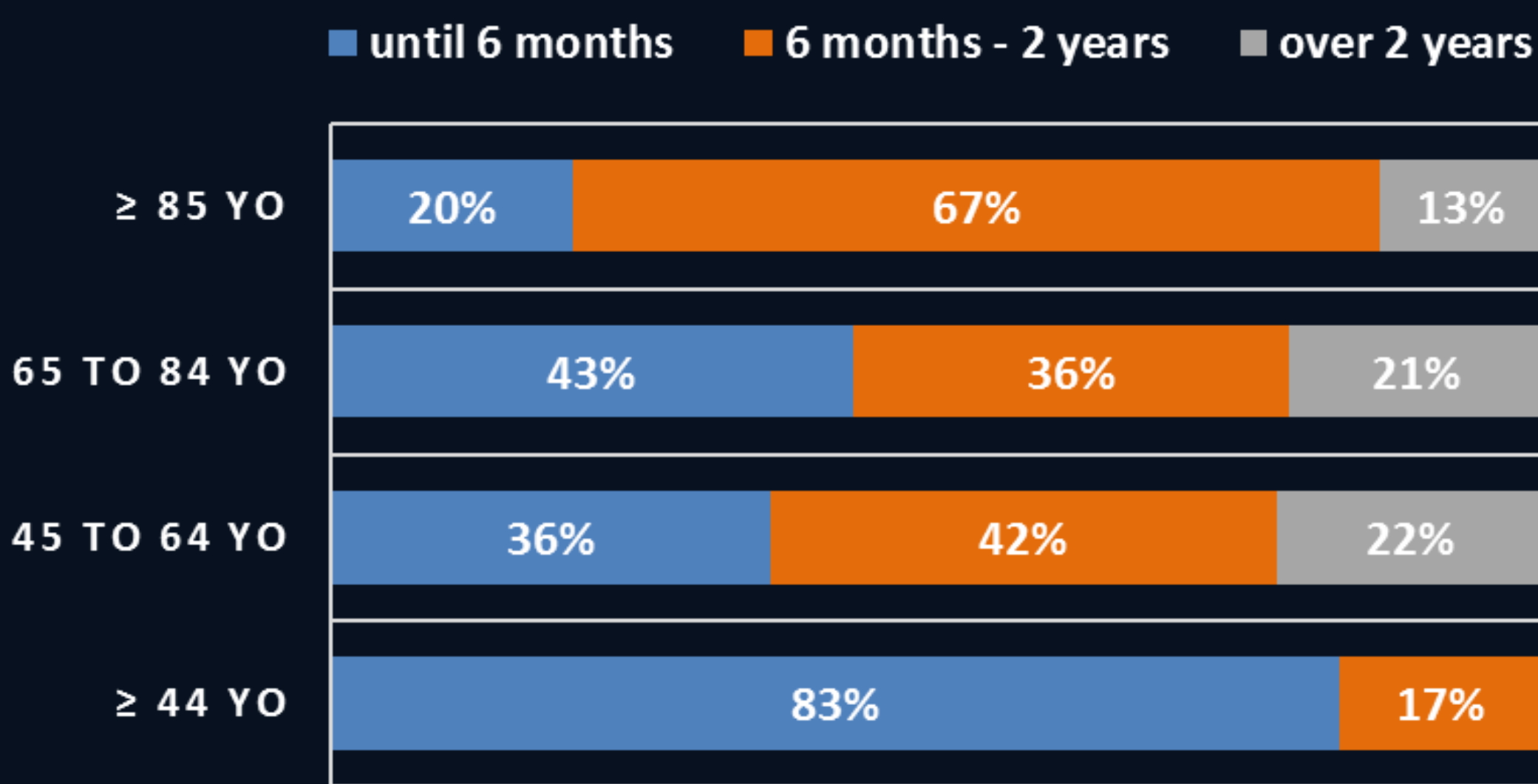
## MATERIALS AND METHODS

9595 clinical records were analyzed, dated between 2005-2015, and the patients that had a diagnosis of BMS were characterize by age, gender, diagnostic delay, number and type of consultations as well as medicines taken and complementary tests prior to diagnosis, symptoms and affected oral sites. A descriptive and inferential statistical analysis (chi-square test, significance level 5%) was performed.

## RESULTS

- 312 patients diagnosed with BMS were identified. The prevalence was 3% of the population of the clinic and 18% of all oral pathologies (1698 cases); The gender distribution was 85% : 15% (Fem : Male Ratio, p<0.05); 90% of the patients were over 45 years of age and 40% over 65.
- Mean diagnostic delay were 41% until 6 months, 35.6% until 2 years and 17.5% over 2 years. See table 1.

TABLE 1



- 42% of the patients at our first appointment were under psychiatric treatment and/or psychotropic drugs. The most frequent other medications taken for their complaints were antimicrobials, topical antiseptics/moisturizing OTC and NSAID.
- 42% of the patients were submitted to invasive complementary examinations (biopsy, CT, MRI...) and 22% had other appointments (ENT, gastro, GP...).
- 62% of the patients complain of pain/burning sensation, 14% xerostomia and 10% dysgeusia. Cancerophobia was found in 10%. See symptoms distribution in table 2.

## CONCLUSION

In our study, BMS affects mainly women over 45 years of age and a significant diagnostic delay with a correspondent increased number of unnecessary consultation, medications and tests was observed. Early diagnosis is the key to prompt treatment and to increase the quality of life of the patients as well as to reduce associated health care and personal costs. The medical community needs more information regarding this condition in order for patients to receive adequate treatment in time.

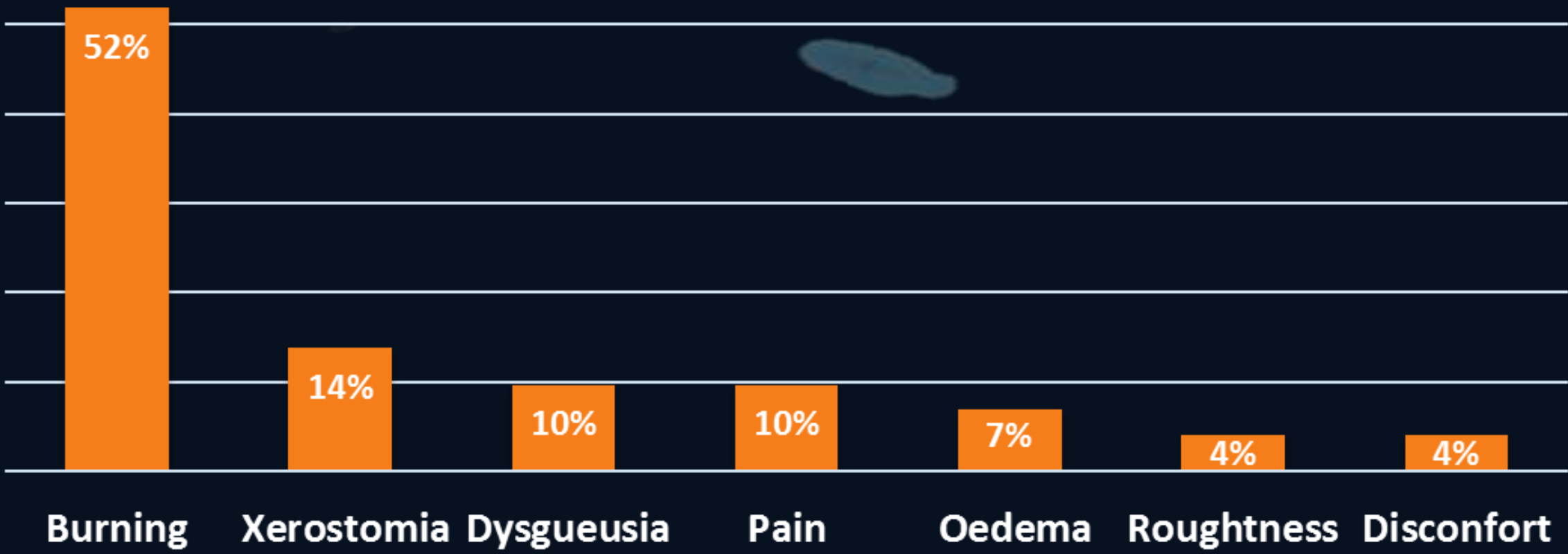
### ACKNOWLEDGEMENTS

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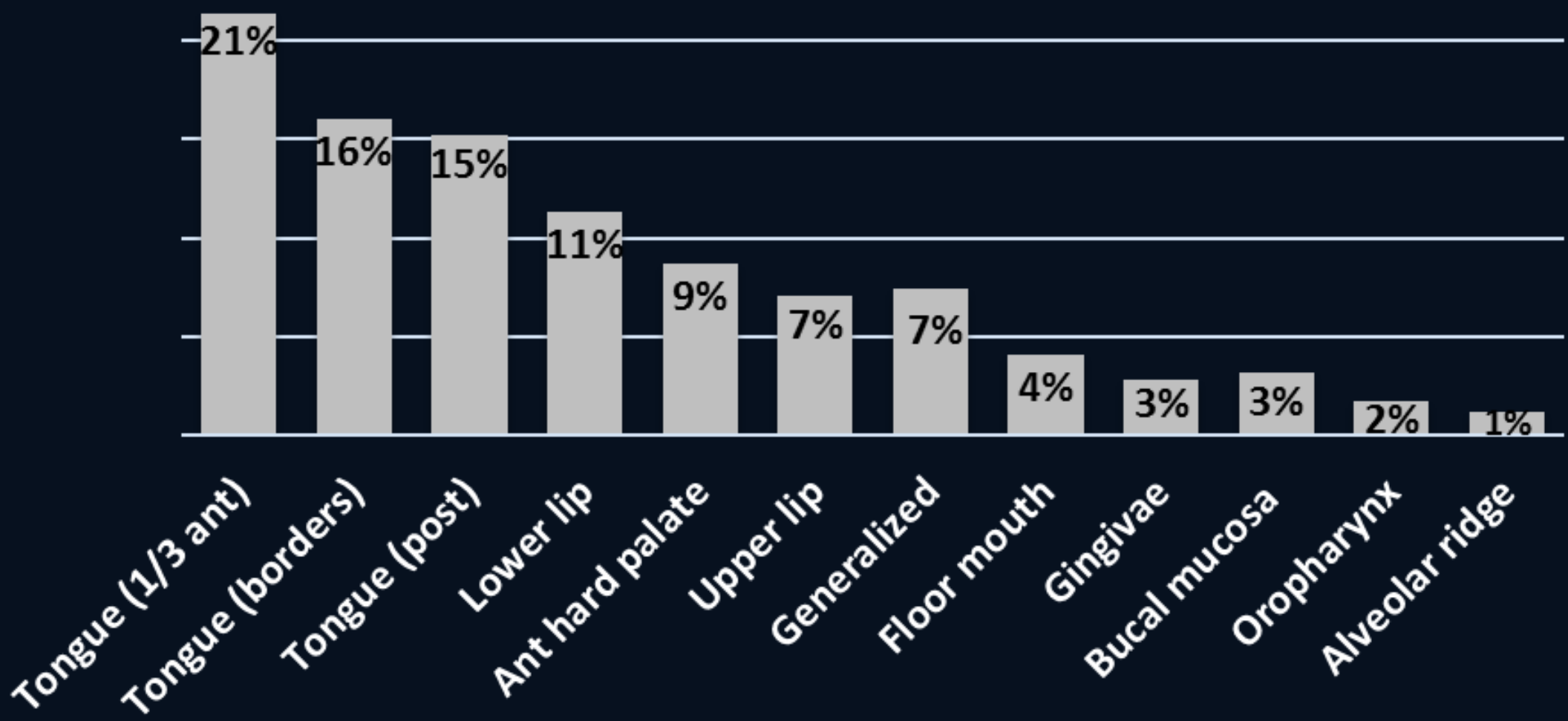
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TABLE 2



- The majority of patients (76%) refer symptoms affecting the tongue, anterior 1/3 of the hard palate and lower lip. 7% have generalized oral pain. See symptoms localizations in table 3.

TABLE 3



## DISCUSSION

Comparing data from our study with published research material is limited by differences on patients distribution by group ages and studies design. The BMS population in our study is the largest found in a MEDLINE search (n=312 patients) and represents a 3% prevalence in a dental clinic, while Bergdahl *et al.* (1999) found it to be 3.7% in a Swedish population, Rabie *et al.* (2010) 15.7% in a population of institutionalized elder and Malik *et al.* (2002) 22% in post-menopause women.

Our gender distribution (85% female patients) are similar with most studies, exception made with Fabricio *et al.* (2012) with 97% female patients and Sanchez *et al.* (2005) with 96.4%. Our patients mean age is 64.3 years and comparable with the research of Adamo D *et al.* (2015) (61.17%).

Our patients over 45 years of age had a diagnostic delay over 2 years while in 83% of our younger patients (≤ 44y) this delay was equal or less than 6 months. We can't compare those data because no other study refers diagnostic delay.

Burning sensation and pain is the main symptom referred by more than 50% of our population. Sanchez *et al.* had 37%.

Xerostomia affects 14% of our patients while Bergdahl *et al.* and Sanchez *et al.* reports 66% and 29.6 %, respectively.

Taste alterations affects 10% of our study patients, being this value comparable with Bergdahl *et al.* (11%) but much lower than values of van der Ploeg *et al.* (1987) for the same symptom (43%).

Concerning psychotropic medications and BMS patients, Fabricio *et al.* referred that 80% of their patients use this drugs while in our population the number is much lower (38%), close to the one published by van der Ploeg *et al.* (33%).