

Oral Lichen Planus (OLP) is the most common autoimmune disease of the oral mucosa (with a high prevalence: 1.85%¹; 2.7%²; 3.4%³).

It may be presented in different clinical manifestations and intraoral locations: white lesions commonly asymptomatic (reticular or plaque lesions) and/or red lesions normally symptomatic (erythematous, atrophic, erosive or ulcerative lesions)⁴. When the red lesions affect the gingiva - OLP-DG erythematous, atrophic, erosive or ulcerative (OLP-DG E/E/U) - it may pose problems for differential diagnosis mainly with periodontal diseases. There are no definitive treatment for OLP once it is an autoimmune disorder so, to manage the pathogenic mechanisms of the disease in symptomatic cases, medical treatment with immunosuppressants and immunomodulators agents (like steroids) are used.

Objectives: The goal of this study was to analyze the prevalence, clinical aspects (location, morphology and symptoms) and treatment approaches of the OLP-DG erythematous, atrophic, erosive or ulcerative lesions, in a total of 263 patients with OLP, identified in a prevalence study of a Portuguese dental clinic (9595 subjects) and comparing these results with published international data.

Material and methods: Retrospective study analyzing the clinical records of 9595 general patients attending a Portuguese dental clinic between 2005-2016. 1698 patients with oral pathology were registered, 263 of which were diagnosed with OLP and OLP-DG was identified in 99 of those cases. Descriptive, inferential statistical analysis (Chi-Square, significance level 5%) were performed.

Results:

OLP (TABLE 1)

The prevalence of OLP in our population was 2.7% (263 of the 9595 subjects), affecting 71.5% females and 28.5% males (n=75). These patients were aged between 23 and 100 years old (mean age of 63 years);

Gingival OLP:

- 99 of the 263 patients with OLP showed gingival involvement (37.6%). 80 were women (80.8%) and 19 were men (19.2%);

Gingival erythematous / erosive / ulcerative OLP (“desquamative gingivitis” - OLP-DG E/E/U):

- Was diagnosed in 91 patients (34.6% of the OLP population and 91.9% of the OLP population with gingival involvement);
- 84.6% were woman and the mean age was 64 years;
- 46.2% affected both upper and lower gingiva and in 71.4% in a bilateral way;
- The symptoms, if present, varied from mild discomfort to severe oral pain, with the general trend increasing from the white to erosive forms;
- This form of OLP (OLP-DG E/E/U) coexisted with other intraoral sites in 91.2% of the cases: reticular lesions occurred in 52 cases; plaque lesions were found in 33 cases and erosive forms in 47 cases;
- In 8.8% of patients showing gingival erythematous / erosive / ulcerative OLP lesions no other sites of oral involvement could be identified;
- None of our OLP-DG patients had oral cancer in the time period studied.

TREATMENT

First appointment: (n=83, OLP-DG E/E/U)

- 67% of the patients presented symptoms:
 - mild discomfort to severe oral pain or aesthetic problems
- Need of Medical treatment with immunosuppressive drugs:
 - Topical (T Group= 29 patients)
 - Topical and systemic (T+S Group= 27 patients)

First Follow-up: (n=48)

- T Group=24 and T+S Group= 24;
- Average time between the two appointments were 4 weeks;
- Treatment results:
 - 83% of all patients were asymptomatic or had improved (T group= 79%; T+S group= 88%);
 - 54% of T group's patients stopped treatment, starting regular follow-up regimen.



Images 1-4: Clinical aspects of 4 of the 99 patients with OLP-DG

Population: 9595 subjects				
Patients with oral pathologies: 1698 (15.5%)				
	n total (%)	n Male (%)	n Female (%)	Age
Oral Lichen Planus (OLP)	263 (2.7)	75 (28.5)*	188 (71.5)*	23 - 100 (63)
Gingival erythematous / erosive / ulcerative OLP (“desquamative gingivitis” - OLP-DG E/E/U):	91 (34.6)	14 (15.4)*	77 (84.6)*	24 – 89 (64)

TABLE 1: Results; * Statistically significant differences for p < 0.05

Discussion:

The OLP prevalence in our population is 2.7%. In recent studies carried outside of Europe rates of 0.98%, 0.8% and 0.8% were reported^(11,12,13). However, these studies have different diagnosis criteria (with 55 years of records⁽¹¹⁾, for example) or age groups that are not typical for OLP (since 1 year old⁽¹²⁾, for example).

The only large European and truly epidemiological study is dated from 1976 (Tony Axéll – Sweden) and reported a OLP prevalence of 1.85% (1.6% in males and 2.3% in females)⁽¹⁾.

The prevalence of OLP DG in our study is similar to the one reported by Mignona et al. (2005)⁸ and much higher than those reported by some other authors^(9,7). This fact could be related with the different classification criteria of this pathology.

The comparison of our results with published international data is presented below in Table 2 and 3.

With respect to our treatment results (Table 3), it is essential to refer that there are no published Randomized Controlled Trials using the same methodology in this area comparing topical steroids with the association between topical and systemic, being it impossible to compare results.

Author Date	Journal	Methods	OLP (n)	Fem - Male % (ratio)	Age Min - Max (Average)	Gingival OLP (OLP- DG)
Henriques I, Pinto AC, Cardoso I, Montenegro R, Rebelo H, Mano Azul A 2018 - Publication		Retrospective study	263	71.5% - 28.5% (3:1)	23-100 (63)	37.6% OLP-DG 34.6% OLP-DG E/E/U 8.8% OLP-DG E/E/U with no other intraoral locations
Mignogna MD et al. ⁸ 2005	J Clin Periodontol	Clinical Exam	700	60% - 40% (2,1:1)	18-83	48% OLP-DG 36.14% OLP-DG E/E/U 15% OLP-DG E/E/U with no other intraoral locations
Radochová V et al. ⁹ 2014	J Clin Exp Dent	Retrospective study	171	67.8% - 32.2% (2.1:1)	20.9 - 85 (55.2)	12.9% OLP-DG E/E/U
Budimir V et al. ⁷ 2014	Med Oral Patol Oral Cir Bucal	Retrospective study	563	73.5% - 26.5% (2.8:1)	19-94 (67.1)	19.7% OLP-DG
Bermejo-Fenoll A et al. ¹⁰ 2009	Oral Oncology	Retrospective study	550	76.7% - 23.3% (3.3:1)	(56.4)	Does not mention

TABLE 2: Results of our study compared with international data – prevalence.

Author Date	Journal	Methods	OLP (n)	% Fem - Male Mean Age	Study Groups (T= topical, S= systemic)	Treatment results
Henriques I, Pinto AC, Cardoso I, Montenegro R, Rebelo H, Mano Azul A 2018 - Publication		Retrospective study	OLP-DG E/E/U 56	84.6% - 15.4% 64 years	T Group: 29 S + T Group (simultaneously): 27	Symptom remission or improvement: T Group: 79% and T + S Group: 88% No need for further treatment: T Group: 54%
M. Carbone et al. ¹⁴ 2003	J. Oral Pathology & Medicine	Prospective comparative clinical study	OLP-DG E/E/U 49	73.4% - 20.4% 60 years	T Group: 23 S + T Group (T after): 26	Symptom remission: T Group: 69.7% and T+S Group: 68.2%
Amit K. et al. ¹⁵ 2003	J. Oral Pathology & Medicine	Randomized Clinical Study	OLP-DG E/E/U 49	40.8 - 59.2 39 years	T Group: 24 S Group: 25	Symptoms improvement: T Group: 66% and S Group: 68% Symptom remission: T Group: 50% and S Group: 52%

TABLE 3: Results of our study compared with international data – treatment.

Conclusions: OLP affects between 1.85-3.4% of the occidental population and mostly females (in our study 2.7% and 72%, respectively).

Nearly 35% of our patients with OLP presented gingival erythematous / erosive / ulcerative lesions (with a proportion female-male of 3:1).

Additionally, 9% of those with OLP-DG had no OLP lesions in other intraoral locations, making differential diagnosis of those conditions, as well as a correct treatment, difficult for the general practitioner. Unlike periodontal disease, when the treatment for OLP is required, immunosuppressants are indicated.

7 out of 10 of our patients received immunosuppressive therapy (topical or the association between topical and systemic). In general after a mean period of 2 months (min: 2 weeks – max: 20 months) all patients were asymptomatic and without medication (n=45, with 3 drop-outs), with no statistical differences (p<0.05) between topical and topical + systemic treatment with immunosuppressants.

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