scaffolds with high level of porosity (>90%), interconnectivity, and mechanical properties (compressive modulus up to 2 kPa). The fibrous nanostructure of these scaffolds was joined to micronic cells of controllable size. ADSCs and OBs were obtained by using an adherent method and an enzymatic digestion method. ADSCs, OBs, and the mixture of ADSCs and OBs (at a ratio of 1:1) were cultured with PLLA/HAp nanostructured aerogel scaffolds, respectively. After 48 hours of in vitro culture, cell-scaffold complexes were subcutaneously implanted into the back of Sprague-Dawley rats in corresponding groups, and PLLA/HAp nanostructured aerogel scaffolds without cells were implanted in a control group. The rats in each group were killed at 8 weeks postoperatively. The macroscopic and histopathological observations were performed to assess the ectopic osteogenesis potential.

Results: After adipogenic, chondrogenic, and osteogenic induction, ADSCs were positive for Oil Red O, toluidine blue, and alizarin red staining. Results of flow cytometry showed that ADSCs were positive for CD147, CD90, CD105, and CD44, with the rate of positivity being >80%, but negative for CD117, CD34, CD131, and CD45, with the rate of positivity being <5%. Passage 3 OBs were positive for both alizarin red staining and alkaline phosphatase staining. At 8 weeks after implantation, soft tissues grew into the complexes under gross observation. At 8 weeks after implantation, ectopic bone formation was visible in each group. The bone formation was more visible in the ADSC-PLLA/HAp nanostructured aerogel scaffold group than in the other groups with a significant difference ($P < .05$).

Conclusions: To conclude, ADSCs can promote the ectopic bone formation of OBs in vivo in combination with PLLA/HAp nanostructured aerogel scaffolds.

CLINICAL IMPACT OF DIRECT-ACTING ANTIVIRAL TREATMENT ON PATIENTS WITH HEPATITIS C VIRUS–RELATED ORAL LICHEN PLANUS

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Objectives: Oral lichen planus (OLP) is a chronic inflammatory mucocutaneous disease. It has been related to hepatitis C virus (HCV) infection as one of the extrahepatic pathologic manifestations. The current treatment for HCV infection with direct-acting antivirals (DAAs) is highly effective and safe. This study aimed to evaluate the impact of HCV eradication on OLP clinical manifestations.

Methods: Patients with a histologic diagnosis of OLP and HCV chronic infection were recruited from the oral medicine and internal medicine units of the University of Campania "Luigi Vanvitelli." All patients received DAA treatment and were monitored at baseline and during and after treatment for liver function and antiviral response. Patients underwent an oral clinical examination before receiving DAAs (T0) and 8 weeks after the end of treatment (T1), and they were observed periodically in follow-up (FU). Statistical analysis was performed using Mann-Whitney and Wilcoxon tests, chi-square tests, and Fisher exact tests.

Results: Eighteen patients (13 females and 5 males; median age, 75 years) with chronic HCV infection of different genotypes were enrolled. All patients cleared HCV RNA with a sustained virologic response at FU. No adverse events were reported. The median FU was 92 weeks at T2. At T0, 5 patients presented with reticular and bilateral white lesions; 7 patients presented with erosive OLP; and 6 patients presented with a mixed form. The mean percentages of oral sites involved were 30% (±13.9) at T0, 20.8% (±12.9) at T1, and 16.2% (±15.2) at T2, showing improvement from T0 to T1 ($P = .007$) and T2 ($P = .005$). One patient developed oral cancer during the treatment and was excluded. Oral lesions have improved in 9 cases (52.9%) at T1 and in 10 cases (55.6%) at FU (T2); among these, 6 (60%) showed complete remission. However, statistical analysis did not reveal a significant correlation between oral improvement and HCV genotype ($P = .64$), viral load ($P = .27$), liver status ($P = .60$), isolated HBcAb positivity ($P = .633$), and type of DAA received ($P = .103$).

Conclusions: DAA treatment leading to HCV eradication can improve OLP symptoms. However, a causative relationship between HCV infection and OLP pathogenesis is difficult to establish. Further studies are necessary.

SELENIUM: A SOLE TREATMENT FOR EROSIVE ORAL LICHEN PLANUS (RANDOMIZED CONTROLLED CLINICAL TRIAL)

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Objectives: Oral lichen planus (OLP) is a chronic disease with immune-mediated pathogenesis. Selenium (Se), an antioxidant, plays a role in modulating immunity. The aim of this clinical trial was to evaluate 2 Se forms (novel topical hydrogel and oral capsules), solely, in treating erosive OLP based on clinical evaluation and salivary oxidative stress markers. To date, to our knowledge, this is the first study to evaluate the role of Se solely in treating erosive lesions associated with erosive OLP. This clinical trial has been registered in the Cochrane Database under registry number PACTR201901531815403.

Methods: Patients were allocated into 1 of 3 groups: group I, topical corticosteroids and topical antifungal as an adjunctive therapy; group II, novel topical Se hydrogel; or group III, systemic Se. Treatment lasted for 6 weeks. Patients were clinically evaluated at baseline and at 6 and 12 weeks for reduction in pain scores and clinical lesion size. Biochemical analysis was performed for salivary malondialdehyde (MDA) and total antioxidant capacity (TAC) levels at baseline and 6 weeks. Correlation between clinical signs and symptoms and salivary oxidative stress markers was measured at 6 weeks. Two-way analysis of variance (ANOVA) followed by a post hoc Tukey test was performed to assess for significant differences in mean pain scores, clinical lesion size, and salivary MDA and TAC levels at 6 weeks. One-way ANOVA was used to test for significant variations in clinical parameters at 12-week follow-up. Principal component analysis and nonmetric dimensional scaling were performed to test for correlation and possible relationships between clinical parameters and salivary oxidative stress markers.

Results: There was a significant reduction in signs and symptoms in response to all treatment modalities. However, there was no significant difference among the 3 groups at 6 weeks. At 12 weeks, group II had significantly lower pain scores than group I. Salivary MDA levels showed a significant decrease