9). Contestaron 483 estudiantes y se analizaron 384 cuestionarios respondidos en su totalidad: 43% mostró depresión significativa y 24.5% ansiedad significativa, lo que se tomó como un puntaje mayor a 9, considerado punto de corte para iniciar tratamiento. De manera subjetiva, 61.3% reportó aumento de ansiedad moderada-severa, además de que se encontró que fueron factores de riesgo los siguientes: ser estudiante de semestres no clínicos, ser mujer, tener enfermedad mental previa y conocer a alguien con síntomas. El cuestionario se aplicó del 2 al 4 de junio de 2020. Es necesario realizar cuestionarios adaptados a los medios electrónicos para la valoración correcta de las variables emocionales, además de crear programas de apoyo psicológico adaptados a la situación.

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Dyslipidemia and severe periodontitis among patients with type 2 diabetes

Dear editor: Among the major chronic complications associated with poor metabolic control in people with diabetes is periodontal disease (36.4%). Some of the main risk factors for periodontal disease in persons with diabetes are disease duration, poor metabolic control, smoking, poor oral hygiene habits, and inadequate diet.[1] Other suggested risk factor is dyslipidemia, some studies have found an increase in levels of total cholesterol, LDL cholesterol, and triglycerides in patients with severe periodontitis, as well as a rise in triglycerides in those without periodontal treatment.[2] The objective of this study was to determine the association between dyslipidemia and severe periodontitis among patients with type 2 diabetes (T2DM).

This cross-sectional study included 78 participants diagnosed with T2DM receiving care at the Metabolic Syndrome Clinic at the *Instituto Nacional de Enfermedades Respiratorias Ismael Cosío Villegas* (INER) in Mexico City, Mexico. Dyslipidemia was defined as triglycerides ≥150 mg/dL and HDL-cholesterol <50 mg/dL in women and <40 mg/dL in men. Oral clinical evaluation was performed by three dentists previously standardized (kappa coefficient ≥0.80) for measurement of dental plaque, dental calculus, and loss of attachment using a periodontal probe PCP2 (Hu-Friedy). Severe periodontitis was defined as at least two interproximal sites with ≥6 mm clinical attachment loss and at least one site with probing depth ≥5 mm.

Mean diabetes duration of the participants was 10.1 years (s.d. 6.6); 39.7% had dyslipidemia and 65.3% had severe periodontitis. The prevalence of severe periodontitis was higher in patients with diabetes duration ≥5 years (70.8%, 95%CI 58.2-80.8) and with dyslipidemia (77.4%, 95%CI 59.3-88.9) as compared with patients with diabetes duration <5 years (46.8%, 95%CI 24.0-70.9, p=1.32), and without dyslipidemia (58.5%; 95%CI 43.7-71.9, p=0.045). After adjustment for diabetes duration and dental calculus (table I), patients with dyslipidemia had 3.18 (95%CI 1.03-9.82, p=0.044) times the probability of severe periodontitis compared with patients without dyslipidemia. As well, patients with

Table I
REGRESSION MODELS FOR DYSLIPIDEMIA AND SEVERE PERIODONTITIS, AND PROBING DEPTH AMONG PATIENTS WITH TYPE 2 DIABETES. METABOLIC SYNDROME CLINIC, INER, MEXICO CITY, 2010

Periodontitis	*Adjusted OR (95%CI)*	*p value*	*Adjusted OR (95%CI)*	*p value*	*Adjusted OR (95%CI)*	*p value*
Duration of diabetes ≥5 years	5.68 (1.53-21.05)	0.009	4.82 (1.34-17-36)	0.016	4.09 (1.19-14.04)	0.025
Dental calculus (poor hygiene)	3.53 (1.12-11.07)	0.030	2.84 (0.94-8.60)	0.063	2.76 (0.93-8.18)	0.067
High triglyceride levels*	-	-	1.89 (0.67-5.29)	0.224	-	-
Low HDL-cholesterol levels*	-	-	-	-	1.73 (0.55-5.40)	0.343
Dyslipidemia*	3.18 (1.03-9.82)	0.044	-	-	-	-
Probing depth	*Adjusted β (95%CI)*	*p value*	*Adjusted β (95%CI)*	*p value*	*Adjusted β (95%CI)*	*p value*
Duration of diabetes ≥5 years	0.31 (-0.30-0.93)	0.315	0.24 (-0.83-1.31)	0.654	-0.77 (-2.06-0.52)	0.238
Dental calculus (poor hygiene)	0.42 (-0.21-1.06)	0.192	0.02 (-0.90-0.95)	0.961	-0.48 (-1.59-0.62)	0.386
High triglyceride levels*	-	-	3.73 (2.76-4.70)	<0.001	-	
Low HDL-cholesterol levels*	-	-	-		2.41 (1.36- 3.45)	<0.001
Dyslipidemia‡	4.81 (4.19-5.42)	<0.001	-		-	

* Triglyceride levels: high was ≥150 mg/dL and normal <150 mg/dL. HDL-cholesterol: low was <40 mg/dL in men and <50 mg/dL in women; normal was ≥40 mg/dL in men and ≥50 mg/dL in women.
‡ Dyslipidemia was defined as high levels of triglycerides and low levels of HDL-cholesterol, and non-dyslipidemia as normal levels of HDL-cholesterol regardless of triglyceride levels.
Hosmer-Lemeshow goodness-of-fit test model: Model 1, p=0.821; Model 2, p=0.743; Model 3, p=0.935
INER: *Instituto Nacional de Enfermedades Respiratorias*

dyslipidemia had a greater probing depth (4.81 mm [95%CI 4.19-5.42], p<0.001) than those without. Also, probing depth was greater (3.73 mm [95%CI 2.76-4.70], p<0.001) in patients with high triglyceride levels and in those with low HDL-cholesterol (2.41 mm [95%CI 1.36-3.45], p<0.001).

Perhaps the association between periodontitis and dyslipidemia is caused by the increase of cytokines as a response to the inflammatory process induced by dyslipidemia. This condition affects immunological and hormonal profiles and causes endotoxemia, leading to an increase in the levels of pro-inflammatory cytokines. This mechanism is exacerbated in the case of patients with diabetes.[3] Then, it is thus necessary to design strategies that consider comprehensive care of people with diabetes to reduce oral complications.

Declaration of conflict of interests. The authors declare that they have no conflict of interests.

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Evidencia molecular de la infección por *Trypanosoma cruzi* TcI en *Meccus pallidipennis* capturados en el municipio de Tepecoacuilco, Guerrero

Señor editor: La enfermedad de Chagas es causada por varios biotipos del protozoario *Trypanosoma cruzi* (*T. cruzi*) que son clasificados en seis unidades discretas de tipificación (en UDTs I-VI o TcI-TcVI) y TcBat. La infección por *T. cruzi* es transmitida por un vector popularmente conocido como "chinche besucona". En México, la especie *Meccus pallidipennis* (*M. pallidipennis*) es