Diabete and covid 19 in SBA region (west of Algeria)

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Background: The objectives of this study is to determine the impact of food supplements and covid-19 on the post-covid diabetes in Sidi Bel Abbès region.

Subject : This is a retrospective and prospective study of 216 patients with covid-19 carried out in the endocrinology department at the CHU Hassani Abdelkader hospital Sidi Bel Abbes over a period ranging from two months (March-April 2022). The data were collected from a questionnaire, parameters studied (sex, age, BMI, PAL, supplementation, vaccination and type of vaccine, Corticosteroid) are collected. The results were analyzed with SPSS V28.

Results : Out of a total of 216 patients, 38 cases of post-covid diabetics (17.5%). The analytical study revealed that the BMI and PAL of the patients is significantly linked to the post-covid diabetes ($p<0.001$ for the two parameters), i.e. 57.9% of the cases have BMI>30 ; 36.8% of cases have low PAL, 63.2% moderate PAL. In addition, the results reveal that vitamin supplementation is significantly linked to the post-covid diabetes ($p<0.001$) ; 97.4% do not take vitamin D, 10, 5% do not take Vitamin C and 60.5% do not take Zinc. The statistical study showed that there is a significant relationship between corticosteroids and post-covid diabetes ($p < 0.001$), 34.2% of cases are treated with corticosteroids.

Conclusion : *These results confirm the existence of a relationship between the parameters studied: body mass index, level of physical activity, food supplements and corticosteroids may be risk factors for the post-covid diabetes.*

Table 2: Association between post-covid diabetes and gender

		Post-covid diabetes				
		No		Yes		
		n	%	n	%	P
Sex	Men	70	39.1	12	31.6	0.385
	women	109	60.9	26	68.4	

Table 3: Association between post-covid diabetes and BMI

		Post-covid diabetes				
		No		Yes		
		n	%	n	%	P
Body mass index	< 18,5	0	0.0	0	0.0	< 0.001
	18,5 – 25	58	32.4	2	5.3	
	25 – 30	114	63.7	14	36.8	
	>30	7	3.9	22	57.9	

Table 7: Association between post-covid diabetes and corticoid treatment

		Post-covid diabetes				
		No		Yes		
		n	%	n	%	P
Corticoid	Without	166	92.7	25	65.8	< 0.001
	With	13	7.3	13	34.2	