

Aim : We aimed to evaluate the incidence of COVID-19 in SBA region west of Algeria. We also evaluated renal involvement and kidney dysfunction during the second waves of the SARS-CoV-2 pandemic in the Algeria, the latter attributed to the Alpha variant.

Methods : We explored the outcomes of all patients with COVID-19 in SBA, west of Algeria ; between 2020 and 2022. During hospitalisation. Renal involvement and kidney dysfunction was based on upper limit of reference interval (ULRI) serum creatinine (sCr) values ; serum urea values; serum AST and ALT values and serum Na values. Peripheral oxygen saturation (SpO2) was measured by pulse oximeter.

CONCLUSION : The impact of chronic liver and kidney disease on outcomes in patients with COVID-19 is uncertain.

Results :

The sample comprised 345 patients (median [IQR] age 65 (25–92) years; 52% men) ; (table 1). The prevalence of COVID-19 was 21.73 %. Increased liver enzymes are observed more commonly in males. Overall ALT elevation occurred in 33.1% (58/345), and AST elevation in 42.5% (77/345). The main biological abnormalities observed were insufficient oxygen saturation in 18 patients; increase in blood sugar 53.9%, hyper uremia 81.7%, hyper creatinemia in 40.7%. TP decreased in 11 patients (35.5%), TCK decreased in 5 patients (25.0%), INR was higher in 17 patients (68.0%), hyponatremia was observed in 34 patients. Discrepancy in renal involvement between pandemic waves was found.

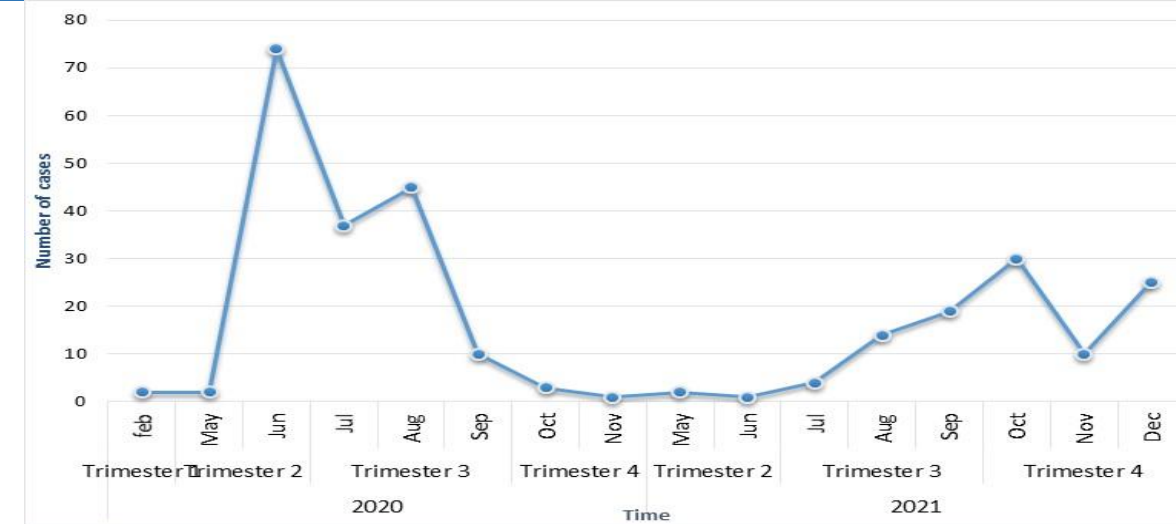


Table 1 : Description of the population

	n	Minimum	Maximum	Mean	Standard deviation	Median	Percentiles	
							25 th	75 th
Age	114	25	92	63	14	65	53	73
GLUC	228	0,5	4,9	1,6	0,8	1,3	1,0	1,8
BUN	295	0,1	21,6	0,6	1,3	0,4	0,3	0,5
CREA	312	1,0	113,1	15,9	16,5	10,9	8,9	14,4
ASAT	181	0,0	159,0	40,1	25,2	34,0	23,8	51,5
ALAT	175	0,0	182,9	32,8	27,6	25,9	13,0	45,0
TP %	31	37,4	100,0	76,8	15,9	78,0	62,3	91,2
INR	25	0,6	2,4	1,3	0,4	1,2	1,1	1,4
TCK	20	2,6	43,3	27,4	9,7	29,5	25,4	33,8
Na ⁺ mEq/L	87	117,7	147,4	135,4	5,1	136,3	132,1	138,4
k ⁺ mEq/L	87	2,7	7,9	3,9	0,8	3,9	3,4	4,2
Cl ⁻ mEq/L	65	8,9	113,0	103,4	5,1	104,0	101,0	107,4
D-dimers	15	252	10000	2360	3029	878	583	2240
SPO2	18	56	90	79	9	82	74	88