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## Correspondence

## Bariatric and metabolic surgery in Colombia during COVID-19, is it a risk? – Correspondence

Dear Editor,

SARS-CoV-2 is a virus of the family of coronaviruses. It is the cause of the respiratory disease called Coronavirus disease 2019 (COVID – 19). The World Health Organization (WHO) declared it to be a public health emergency of international concern on January 30, 2020 and recognized it as a pandemic on March 11, 2020, when it was reported that there were 4291 deaths and 118,000 cases in 114 countries [1].

In Colombia, on March 18, 2020, in response to the health emergency, national curfew was ordered by presidential order [2]. Multiple meetings were then held among the medical associations of the country, one of which was the Colombian Association of Surgery. The aim was to create guidelines for healthcare management in Colombia, especially in the surgical area that would be seriously altered with the high demand on Intensive Care Units due to the pandemic. Scheduled surgical procedures [3] have to be rescheduled with the growing concern on the adverse consequences of the complications to non-timely performance of certain procedures.

Currently, obesity is an important and an increasing public health problem in Colombia and around the world. According to the latest figures from the National Survey of the Nutritional Situation (ENSIN) for 2015, around 10 million Colombians were suffering from this pathology [4].

The Spanish Society of Obesity Surgery and Metabolic Diseases (SECO), in conjunction with the International Federation of Surgery of Obesity and Metabolic Disorders (IFSO), propose that as patients with obesity and metabolic disease present with great alterations in various organ systems to generate a procoagulant and pro-inflammatory state, and the immune response innate and adaption to infections are also affected [5], obese patients with SARS-CoV-2 infection have worse prognosis, a high rate of hospitalization and increased need for invasive mechanical ventilation (IMV) [6].

Currently, bariatric and metabolic surgery is a safe, fast and effective treatment to patients in achieving weight loss and in decreasing having diseases associated with obesity. In addition, as ICU requirement after these procedures does not amount to 2%, we consider that there is a need to continue performing these procedures to decrease morbidities and mortalities in cases when obese patients acquire SARS-CoV-2 infection [7].

From March to December 2020, 55 bariatric and metabolic procedures (MBS) were performed by us, with 44 Laparoscopic Roux-en-Y and Gastric Bypass, and 11 Sleeve Gastrectomy. All these patients were evaluated by a multidisciplinary team consisting of practitioners in General Medicine, Bariatric Surgery, Nutrition, Sports Medicine Psychology and Anesthesiology. A survey was conducted on each patient to detect possible symptoms of SARS-CoV-2. In the pre-procedure clinics, blood tests for antibodies of SARS-CoV-2 were done. All the patients in this study met the established inclusion criteria.

The demographic and clinical characteristics of these patients are shown in Tables 1 and 2. Most procedures were performed in women (56.8%), the mean age was  $38.7 \pm 9.6$  years. The mean Body Mass Index (BMI) was  $40.1 \pm 5.89$ , and 72.7% of patients had Metabolic Syndrome (MetS) as determined by the International Diabetes Federation (IDF) scale.

All these patients were surveyed on the day of the procedure. All health personnel who treated them were fully complied with the personal protection elements (PPE) that had been stipulated by the health agencies at the national level [8].

To assess whether the patients had acquired SARS-CoV-2 infection during their procedure or hospital stay (24 hours), the day of the procedure was taken as day zero and a telephone follow-up survey was conducted on day 5, 10, 20 and 30 on respiratory symptoms. Only two patients had respiratory symptoms during the first 15 days of operation. On giving RT-PCR SARS-CoV-2 tests, only one patient was detected to be positive, and this patient did not require oxygen support or hospitalization. Therefore, the incidence of COVID-19 infection in our patients was only 1.8%.

In conclusion, our experience was satisfactory in conducting MBS at the time of COVID-19. However, the importance of a single appointment, adequate management of PPE for both healthcare personnel and patients, and adequate follow-up are the important factors in prevention of SARS-CoV-2 infections in this study.

**Table 1**  
Patient demographics by procedure type.

|                          | SGIT n (%) | LRYB n (%)  | Total n (%) |
|--------------------------|------------|-------------|-------------|
| Number of patients       | 11 (20)    | 44 (80)     | 55 (100)    |
| Gender                   |            |             |             |
| Female                   | 6 (55)     | 25 (56,8)   | 31 (56,3)   |
| Male                     | 5 (45)     | 19 (43,2)   | 24 (43,7)   |
| Age (Years) <sup>a</sup> | 38,2 ± 5,7 | 38,8 ± 10,3 | 38,7 ± 9,6  |
| Comorbidities            |            |             |             |
| Arterial Hypertension    | 1 (1,8)    | 30 (54,5)   | 31 (56,3)   |
| Dyslipidemia             | 4 (7,2)    | 23 (41,8)   | 27 (49)     |
| Sleep Apnea              | 1 (1,8)    | 10 (18,1)   | 11 (20)     |
| Diabetes Mellitus 2      | –          | 4 (7,2)     | 4 (7,2)     |
| Coronary Heart Disease   | 1 (1,8)    | 1 (1,8)     | 2 (3,6)     |
| Depression               | –          | 2 (3,6)     | 2 (3,6)     |
| DVT                      | –          | 1 (1,8)     | 1 (1,8)     |
| Cholelithiasis           | –          | 1 (1,8)     | 1 (1,8)     |
| Dermatitis               | –          | 1 (1,8)     | 1 (1,8)     |
| Gastro esophageal Reflux | –          | 1 (1,8)     | 1 (1,8)     |
| Metabolic Syndrome       | 4 (7,2)    | 36 (65,5)   | 40 (72,7)   |

<sup>a</sup> Mean ± DE.

**Table 2**  
Clinical characterization of pre-procedure patient.

|  | Base           |
|--|----------------|
| <b>Vitals</b>                            |                |
| Heart Rate, mm Hg                        | 87 ± 8,78      |
| Systolic Blood Pressure, mm Hg           | 139 ± 15,79    |
| Diastolic Blood Pressure, mm Hg          | 88 ± 11,12     |
| Mean Blood Pressure, mm Hg               | 114 ± 11,32    |
| <b>Anthropometric measurements</b>       |                |
| Weight, Kg                               | 113,5 ± 21, 49 |
| Body mass index (BMI), Kg/m <sup>2</sup> | 40,1 ± 5,89    |
| Waist, cm                                | 120 ± 17,85    |
| Hip, cm                                  | 127 ± 13,07    |
| Waist/Hip Index, cm                      | 0,91 ± 0,10    |
| % Fat                                    | 48,5 ± 5,67    |
| <b>Laboratory Tests</b>                  |                |
| Hb1ac                                    | 5,6 ± 0,57     |
| Basal Glycemia                           | 98 ± 12,05     |
| Triglycerides                            | 161,9 ± 67,5   |
| Total, Cholesterol                       | 194,3 ± 30,24  |
| HDL                                      | 42,4 ± 9,92    |
| LDL                                      | 119 ± 31,93    |
| Creatinine                               | 0,84 ± 1,25    |
| Uric Acid                                | 6,2 ± 1,36     |
| TSH                                      | 2,6 ± 2,48     |
| Insulinemia                              | 21 ± 10,98     |

\*Mean ± DE; HDL high-density lipoproteins, LDL low-density lipoproteins, TSH thyroid-stimulating hormone.

### Provenance and peer review

Not commissioned, internally peer-reviewed.

### Data

With the purpose and due to the informed consents made to the patients that their identity would not be revealed, the data would be kept confidential.

Data not available/The data that has been used is confidential.

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