



Endocrinology Committee FOGSI

COVID 19 and Endocrine Diseases



During the challenging period of the COVID-19 pandemic, European society of Endocrinology (ESE) has come up with the latest updates to guide doctors provide treatment as well as develop new care pathways for their patients. There is a much greater need now than ever for a more integrated multidisciplinary team effort along with physicians, internal medicine and emergency unit to ensure optimal health status of the patients with different endocrine diseases to prevent the adverse COVID-19-related outcomes.

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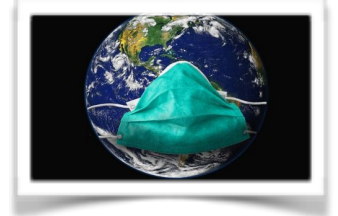
"Nobody can go back and start a new beginning, but anyone can start today and make a new ending."

- Maria Robinson



COVID 19 and INFECTIONS

In the past few weeks we have known that COVID 19 seems to have spread by novel corona virus from infected animals and human-to-human transmission with asymptomatic people acting as major vectors. It spreads like any other respiratory flu infections by contaminated air droplets while talking, coughing, or sneezing. The virus is known to survive in the environment from a few hours to a few days, depending on surfaces and environmental conditions, and touching affected surfaces. The mouth, nose, and ocular mucosa appears to be the major way of transmission. Majority of the patients have found to recover well from COVID -19 but the morbidity risk appears to increase with older age and in persons with preexisting medical conditions. Among the confirmed COVID-19 cases in China by Feb 11, 2020, the overall mortality reported is 2.3% in hospitalized patients and around 0.9% with no previous medical comorbidities ¹. In one of the studies from Wuhan, China major comorbidities seen in the mortality cases were hypertension (53.8%), diabetes (42.3%), previous heart disease (19.2%), and cerebral infarction (15.4%) ²



COVID-19 and OBESITY

There is a general lack of data regarding the impact of COVID -19 in obese people. However, some hospitals in Spain have reported cases of COVID in young people with severe obesity deteriorating to destructive alveolitis with respiratory failure. There is no current explanation for this clinical presentation, although it is well known that severe obesity is associated to sleep-apnea syndrome, as well as to surfactant dysfunction along with impairment in sugar control may contribute to a worse scenario in the case of COVID-19 infection.

COVID-19 and UNDERNOURISHMENT

COVID-19 infection is associated to a high risk of malnutrition development, mostly contributed by increased metabolic requirement of the body in presence of a severe acute inflammatory status. These patients show also a hyporexic state, thus contributing to a negative nutritional balance. Estimated nutritional requirements are 25–30 kcal/kg of weight and 1.5 g protein/kg/day.⁴ ESE strongly recommends a nutrient dense diet in hospitalized cases with high protein supplements (2–3 intakes per day) containing at least 18 g of protein per intake. Adequate supplementation of vitamin D is recommended particularly in areas with large known prevalence of hypovitaminosis D.



COVID 19 and DIABETES MELLITUS

Uncontrolled Diabetes and chronic hyperglycemia is known to have detrimental effect on the immune system and diminishes the capacity of the body to fight off any infection effectively. It also increases the risk of morbidity and mortality by increasing the risk of multi organ complications.

It is strongly advised that people with diabetes strictly follow all preventive measures including strict social distancing even in their homes (avoid contact with relatives), stricter hand hygiene. It is imperative to maintain good glycemic control to not only reduce the risk of infection but also to minimize COVID related complications. It is advised to be in touch with their healthcare providers on teleconsultation for optimal control of the disease. Also, to ensure adequate stock of medicines and supplies for regular monitoring of diabetes and its control during home confinement periods. People with diabetes if infected with COVID-19 may experience a deterioration of glycemic control during the illness, like in any other infectious episodes along with flu like symptoms. ESE recommends following “SICK DAY rules” strictly³ and recommends patients to seek advice from health care providers immediately on telephone, email, messages or videoconferencing to prevent further deterioration the health status of the diabetic patient and when needed timely referral to another specialist (Pneumologist or infectious disease doctor) or in the Emergency Services.

COVID 19 and ADRENAL INSUFFICIENCY

It is known that patients with Addison’s disease (primary adrenal insufficiency) and congenital adrenal hyperplasia have a slightly increased overall risk of getting infections. It is primarily due to the fact that primary adrenal insufficiency is associated with an impaired natural immunity function with a defective action of neutrophils and natural killer cells.⁵ It is strongly advised that any suspicion of COVID-19, a prompt modification of the replacement treatment as indicated for the “Sick days” should be established. It is recommended to at least double the usual doses of glucocorticoid replacement when milder symptoms appear, to avoid adrenal crisis. In addition, patients are also recommended to have sufficient stock at home of steroid pills and injections in order to maintain the social confinement that is required in most of the countries for impeding the COVID-19 outbreak spread.

An ESE guide of recommendations for the patients during Home confinement:

This is advisory for Individuals and families affected or suspected to be affected by COVID-19 that stay at home

1. One must follow proper measures for infection prevention and control.
2. Management should focus on prevention of transmission to others and monitoring for clinical deterioration, which may prompt hospitalization.
3. Affected persons should be placed in a well ventilated single room, while household members should stay in a different room or, if that is not possible, maintain a distance of at least one meter from the person affected (e.g., sleep in a separate bed).
4. Perform hand hygiene (washing hands with soap and water) after any type of contact with the affected person or their immediate environment. When washing hands, it is preferable to use disposable paper towels to dry them. If these are not available, clean cloth towels should be used and replaced when wet.
5. To contain respiratory secretions, a medical mask should be provided to the person affected and worn as much as possible. Individuals who cannot tolerate a medical mask should use rigorous respiratory hygiene—i.e., the mouth and nose should be covered with a disposable paper tissue when coughing or sneezing.
6. Caregivers should also wear a tightly fitted medical mask that cover their mouth and nose when in the same room is

An ESE “decalog” for endocrinologists in the COVID19 pandemic:

1. Adequately protect yourself and ask for COVID-19 testing if exposed.
2. Avoid unnecessary routine appointments in person.
3. Put in place online/email/phone consultation services.
4. Closely monitor glycemic control in patients with diabetes.
5. Recommend to persons with diabetes a strict adherence to general preventive measures.
6. Counsel persons with diabetes about specific measures related to their disease management (sick day rules) in case of infection by COVID-19.
7. Counsel persons with diabetes particularly if aged over 65 and obese about referrals for management in case of suspected infection by COVID-19.
8. Avoid undernourishment with dietary or adjunctive measures if clinically indicated.
9. Closely monitor clinical conditions of patients with adrenal insufficiency.

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