

Endocrinology Practice in COVID-19 era: The Nigeria experience

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Introduction

Clinical Endocrinology is a specialized branch of Medicine that deals with the diagnosis and treatment of disorders of the endocrine glands. Endocrine glands are specialized structures that produce and secrete chemicals, called hormones, which interact with specific receptors to produce some physiological effects. The traditional endocrine glands are the pituitary gland, the thyroid gland, the parathyroid glands, the adrenal glands, the gonads and the endocrine pancreas.

According to the Endocrine and Metabolism Society of Nigeria, there were about 200 Endocrinologists to serve a Nigerian population of about 190 million [1],[2]. This is a major strain on the optimal Endocrinology care delivery. Endocrinologists in Nigeria see a myriad of endocrine disorders but the most common endocrine cases seen re diabetes mellitus, thyroid disorders, pituitary disorders, obesity, dyslipidaemia and adrenal disorders [3].

COVID-19 is a viral infection of public importance affecting most countries in the world. At the time of writing this article, it has affected about 15 million people globally with over 300 000 deaths [4]. In Nigeria, according to the Nigeria Centre for Disease Control and Prevention (NCDC), over 30 000 cases have been reported with about 800 deaths, as at the time of writing this article. The emergence of COVID-19 has had a significant strain on Endocrinology practice in Nigeria [5]. Some measure that have been put in place in Nigeria such as lockdown and social distancing have posed a major challenge to the Endocrinologists in managing old and new endocrine cases [6].

Diabetes mellitus has been documented to be associated with an increased risk of contracting COVID-19 and of dying from it [7]. In Nigeria, COVID-19 is associated with barriers against optimal glycemic control. These barriers include unhealthy diet as a result of disruption of the food supply chain, lack of physical activity due to the lockdown and lack of access to the glucose lowering agents, and where accessible, they are unaffordable. Some of these barriers could have been overcome by online platforms such as telemedicine but internet facilities are poorly developed and most of the patients are illiterate. Due to the fear of contracting COVID-19 in the hospital, most of the patients did not turn up for follow up clinics and their glycemic control could not be assessed by

the Endocrinologists. In some health facilities, the whole outpatient clinics were shut down due to the fear of the health personnel of contracting the infection from the outpatients.

Hyperthyroidism or hypothyroidism has not been documented to be a risk for COVID-19 but severe infection could precipitate complications such as thyroid storm or myxedema coma in these patients [8]. Also, agranulocytosis, which is a rare complication of carbimazole can increase the risk of contracting COVID-19. Most of the thyroid patients were not coming for follow up in the clinics because of the misconception that they would contract the infection in the hospital. Patients with thyroid eye disease, on steroids, have increased risk of being infected with the coronavirus. Those with metastatic lung diseases from thyroid cancer are also more prone to the infection.

Both adrenal insufficiency and Cushing syndrome have been reported to increase the risk of being infected with the coronavirus causing COVID-19 [9]. Patients with Addison's disease and Cushing syndrome are being seen by Endocrinologists in Nigeria. COVID-19 can also lead to the precipitation of adrenal crisis in patients with Addison's disease. Cushing syndrome is associated with co-morbidities such as diabetes and hypertension which have been reported to increase the risk of getting COVID-19.

Endocrinologists in Nigeria manage patients with pituitary disorders. Corticotropinoma causing Cushing disease increases risk of contracting COVID. Hypopituitarism crisis can be precipitated in patients with COVID-19. Patients with pituitary tumors could not get surgery done due as they are not presenting for referral. Some centres also had COVID-19 confirmed in post-operative patients leading to the theatres being closed down for disinfection. Lack of sun exposure due to lockdown could worsen vitamin D deficiency leading to aggravation of osteoporosis.

Conclusion

There is paucity of Endocrinologists in Nigeria. However, the population suffering from endocrine disorders far outweighs the capacity for optimal endocrinology care. The emergence of COVID-19 in Nigeria had put a further strain on the adequacy of Endocrinology care that is offered to the teeming Nigerian population with endocrine disorders. So far, there is no

approved effective vaccine against COVID-19 therefore, there is a need to highlight and adapt to the issues that COVID-19 has brought to the fore in Endocrinology practice in a developing nation like Nigeria.

Conflict of interest:

None

References

1. Idowu AO, Adesegun OA, Osonuga A, Osibowale B, Ajiro T, Ngubor TD et al. Patterns and Impact of Consultations to an Endocrinology Unit in a Tertiary Hospital in Southwestern Nigeria. *NMJ*. 2018; 59 (3): 28-32.
2. Endocrine and Metabolism Society of Nigeria. About-EMSON. <https://emsonnigeria.org/emson/about/>. Accessed on 1st July, 2020
3. Anyanwu AC, Odeniyi IA, Fasanmade OA, Adewunmi AJ, Adegoke O, Mojeed AC, et al. Endocrine-related diseases in the emergency unit of a tertiary health care center in Lagos: A study of the admission and mortality patterns. *Niger Med J*. 2013;54:254–7.
4. European Centre for Disease Prevention and Control. <https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>. Accessed on 1st July, 2020.
5. Nigeria Centre for Disease Control and Prevention (NCDC). <https://covid19.ncdc.gov.ng/>. Accessed on 1st July, 2020.
6. Kannan S, Ali PSS, Sheeza A, Hemalatha K. COVID-19 (Novel Coronavirus 2019) - recent trends. *Eur Rev Med Pharmacol Sci*. 2020; 24(4):2006-2011.
7. Pal R, Bhadada SK. COVID-19 and diabetes mellitus: an unholy interaction of two pandemics *Diabetes. Metab Syndr Clin Res Rev*. 2020; 14: 513-517.
8. Pal R, Bhadada SK. Managing common endocrine disorders amid COVID-19 pandemic. *Diabetes Metab Syndr*. 2020; 14(5): 767-771.
9. Tresoldi AS, Sumilo D, Perrins M, Toulis KA, Prete A, Reddy N et al. Increased infection risk in Addison's disease and congenital adrenal hyperplasia. *J Clin Endocrinol Metab*. 2020; 105:418-429.