

PRESS RELEASE

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Under embargo until 21 May 12:00 CEST

Ramadan fasting can create complications for patients with endocrine diseases, according to three new studies

Fasting throughout the holy month of Ramadan is important for millions of people around the world. Endocrinologists from two different Moroccan institutions have through different approaches discovered that Ramadan fasting might induce hormone imbalances in people with endocrine issues.

Their three new studies will be presented at the 24th European Congress of Endocrinology which will be held in Milano, Italy between 21-24 May 2022. The studies looked into the impact on patients with diabetes and hypothyroidism, and provided a general overview of the frequency of emergency endocrine issues during the month of Ramadan.

High risk of emergency hospital admission in fasting patients with diabetes

During the holy month of Ramadan in 2021 (April 13 to May 12), Dr. Simeu and his team from Morocco's Ibn Rochd University Teaching Hospital observed that 150 diabetic patients were rushed to their emergency room with a serious metabolic issue. Diabetic ketosis was the primary reason for admission (57%) while the frequency of hypoglycemia remained low (2%).

“If fasting during Ramadan is allowed in healthy patients, it must be stopped if a patient’s diabetes is uncontrolled” said Dr. Simeu. “Therapeutic education and sufficient medical care are essential to avert acute issues.”

Pre-fasting consultation is crucial to manage endocrine conditions

Two studies from UHC IBN ROCHD in Casablanca, Morocco, looked at endocrine emergencies during Ramadan in general and in thyroid patients specifically.

Dr. Gueddari and his team examined 62 patients who were followed in consultation for hypothyroidism. The researchers wanted to see how fasting throughout Ramadan altered hormone balance and compare the use of L-thyroxine, used to treat an underactive thyroid, 30 minutes before the meal to break the fast at sunset (iftar) and at the pre-sunrise meal (suhour).

“Fasting during Ramadan may induce hormonal imbalance in patients with hypothyroidism”, said Dr. Gueddari. “It is therefore critical to teach patients how to take their medicine and to follow up with them after the month of fasting.”

Dr. Settai and her colleagues conducted a prospective study to determine the frequency of endocrine emergencies during Ramadan, and the risk of endocrine decompensation as a result of fasting. The

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study comprised 47 people who sought medical help for endocrine emergencies between during Ramadan 2021.

“Fasting during Ramadan is a spiritual rite for Muslims, but it comes with concerns since it can cause hormonal imbalances” said Dr. Settai. We recommend a pre-Ramadan consultation in endocrine patients to adjust the treatment and discuss options”.

Fasting might trigger acute issues in normally stable endocrine patients, according to the studies. Before fasting, an endocrine patient should always consult with a doctor, and it is recommended that fasting be interrupted if any difficulties arise.

-END-

Notes for Editors

1. The presentations “Metabolic emergencies during the month of Ramadan”, “Endocrine emergencies during Ramadan”, “Impact of Ramadan fasting on patients followed for Hypothyroidism” will all be delivered on 21 May 12:00 CET
2. ECE 2021 will be held in Milan on the 21-24 May 2022. You can access more information about the event [here](#).
3. The [European Society of Endocrinology](#) was created to promote research, education, and clinical practice in endocrinology by the organisation of conferences, training courses and publications, by raising public awareness, liaison with national and international legislators and by any other appropriate means.

About the European Society of Endocrinology

The European Society of Endocrinology (ESE) provides a platform to develop and share leading research and best knowledge in endocrine science and medicine. By uniting and representing every part of the endocrine community, we are best placed to improve the lives of patients. Through the 54 National Societies involved with the ESE Council of Affiliated Societies (ECAS) ESE represents a community of over 20,000 European endocrinologists. We inform policy makers on health decisions at the highest level through advocacy efforts across Europe.

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Abstracts

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Metabolic emergencies during the month of ramadan

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Introduction

Fasting in the month of Ramadan is one of the pillars of Islam. The diabetic subject, whether he practices it or not, if not prepared expose him to acute complications. The objective of our study was to determine the frequency of occurrence of acute complications during the month of Ramadan.

Objectives

To establish the epidemiological profile of diabetics seen in the emergency room during the month of Ramadan.

Determine the frequency of occurrence of acute metabolic complications during this month.

Material and methodology

Descriptive observational study, conducted from April 13 to May 12, 2021, including 150 diabetic patients admitted to the emergency room of the Ibn Rochd UTH in Casablanca, for an acute metabolic complication during this sacred month.

Results

The mean age was 44.6 years (18-78). A female predominance with an M/F sex ratio of 2.22. T2DM was the majority (70%), the average duration of diabetes was 12 years (1-20), fasting was practiced by 44% of patients, including 9% of elderly subjects, degenerative complications of diabetes were present in 10% of patients, diabetic retinopathy was predominant (67%). Diabetic ketosis was the main reason for admission (57%), the frequency of hypoglycaemia remained low (2%). The mean HbA1c level was 12.4% (8.2-15.3), 64% of patients were on insulin. Forgetfulness of treatment was found in 51% of patients. Before Ramadan, 52% of T1DM patients and 64% of T2DM patients had not discussed with their healthcare professional, among them 93% of these T1DM patients (p=0.0015) and 50% of these T2D patients (p=0.07), presented an acute complication.

Conclusion

Fasting during the month of Ramadan, if authorized in balanced patients, must be interrupted if diabetes is unbalanced. Therapeutic education and appropriate medical care are necessary to avoid acute complications.

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EP38

Endocrine emergencies during Ramadan

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Introduction: Ramadan, the holy month of fasting, is a stressful period that exposes to endocrine disturbances, which may decompensate some endocrinopathies or precipitate their revelation.

Objectives: To evaluate the incidence of endocrine emergencies during the month of Ramadan, and thus the risk of endocrine decompensation related to fasting.

Materials and methods: This is a prospective study conducted in the department of endocrinology and diabetology, including 47 patients who consulted for endocrine emergencies during Ramadan, in the period from April 13 to May 12, 2021. Data analysis was performed using SPSS version 25 software.

Results: The average age of our patients was 39 years (18-70 years), with a sex ratio of 3:1. Young people represented 78.7%. Before the month of fasting, 68% of the patients were known to have endocrinopathy (hyperthyroidism, hyperparathyroidism, adrenal insufficiency), 43% of whom admitted poor compliance with their treatment during Ramadan.

Hyperthyroidism predominated in 48.9%, with 25.5% of acute adrenal insufficiency, 21.2% of acute hypocalcemia, and 4.2% of acute hypercalcemia.

In 63.9% of the patients, no decompensation factor other than fasting was identified. Other causes were mainly pancreatitis (34%), underlying heart disease (16%), urinary tract infections (11%), and other causes (cholecystitis, tuboovarian abscess, pneumocystis, Guillain-Barré syndrome).

Conclusion: Ramadan fasting is a sacred ritual for Muslims, but it is not without risks since it exposes to hormonal disturbances that can reveal or decompensate certain endocrinopathies. Hence the need for a pre-Ramadan consultation to adapt the treatment and to discuss the possibility of fasting, with close follow-up during the holy month, to avoid the risk of complications.

EP1072

Impact of Ramadan fasting on patients followed for Hypothyroidism.

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Introduction: During Ramadan, Muslims change their eating and sleeping habits. All these changes can cause metabolic and hormonal variations.

The main treatment for hypothyroidism is L-thyroxine. It is known that the absorption of L-thyroxine is optimal when taken on an empty stomach.

Very few studies have been conducted to examine the best time to administer L-thyroxine during Ramadan.

Objective of the study: To evaluate the impact of Ramadan fasting on hormonal balance and to compare the use of L-thyroxine 30mn before Fotour and at Sohour.

Material and methods: Prospective study including 62 patients followed in consultation for hypothyroidism. A TSH measurement was performed before and after 6 weeks.

The evaluation of the therapeutic compliance was evaluated by the MORISKY Medication Adherence Scale.

Results: We recruited 62 patients, 53 of whom were women (85.5% of cases) and 9 men (14.5% of cases). The average age was 50.4 years (29-80). Hypothyroidism of peripheral origin was present in 24 patients (38.7% of cases) while hypothyroidism secondary to total thyroidectomy was present in 38 patients which is 61.3% of cases. Twenty-nine patients preferred to take L-thyroxine at the time of Fotour (46.8% of cases), while 33 patients preferred to take it at the time of Sohour (53.2% of cases). Compliance was good in 87.1% of cases and average in 12.9% of cases. In post-Ramadan, 75.8% of patients remained euthyroid, 17.7% hypothyroid and 6.5% hyperthyroid without significant correlation between the two therapeutic schemes ($p=0.07$).

Conclusion: Fasting during the month of Ramadan may be responsible for hormonal imbalance in patients on L-thyroxine, hence the interest of educating these patients on the use of medication and of a close follow-up after the month of fasting.