**Results** During the autopsy of rabbits, the presence of serous-fibrinous effusion, characteristic tubercular formations on the peritoneum, polymorphic adhesive process due to the organization of exudate in the abdominal cavity was noted. It was proved in the experiment that all animals developed tuberculous peritonitis with a lesion of the large omentum and serous integuments of internal organs (IDDF2021-ABS-0013 Figure 1. Autopsy the adhesive process and gray tubercles are disseminated on the parietal and visceral peritoneum)( IDDF2021-ABS-0013 Figure 2. Autopsy gray tubercles on the parietal peritoneum). A molecular genetic study of fragments of the omentum and peritoneum revealed the DNA of mycobacterium tuberculosis. Histological examination of the fragments of the peritoneum and the omentum showed an area of caseous necrosis and granuloma-like clusters of macrophages (IDDF2021-ABS-0013 Figure 3), single clusters of acid-resistant mycobacteria were detected when the preparations were stained according to Ziehl-Neelsen.

**Conclusions** The developed method of modeling tuberculosis peritonitis is close to the real human disease in clinical and morphological manifestations and allows us to study the dynamics and mechanisms of the development of a specific infectious process in the abdominal cavity.
Conclusions

The result of this study may add evidence to the microbiologic etiology of recurrent cholelithiasis and help to develop new prevention methods to avoid recurrence post EST.

**Abstract IDDF2021-ABS-0029**

**GLUCOSE LEVELS DECREASE AFTER PERFORMING ISLAMIC FASTING MODELS BUT NOT ONLY RAMADAN FASTING IN HIGH-FAT-HIGH-FRUCTOSE-INDUCED RATS**

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Background

High-fat-high-fructose (HFHF) intake contributes to developing type 2 diabetes mellitus (T2DM) as a comorbid. Intermittent fasting in Islam, such as Ramadan fasting (RF), Dawood fasting (DF), and Monday-Thursday fasting (MTF), have been suggested that ameliorate glucose levels. However, there has been no research investigating the effects of DF and MTF on glucose levels. This study investigates the effect of fasting in Islam on glucose level changes in HFHF-induced rats.

Methods

Twenty-five 8-week-old male Wistar rats were randomly divided into five groups after acclimatisation for seven days. Group 1 was maintained as standard diet control; Group 2 was maintained as HFHF control diet; Group 3 was treated with RF, which fasted every day; Group 4 treated with DF, which on the 1st day performed fasting (no food and drink), the 2nd day is not performed fasting (free to eat and drink), and the 3rd day is performed fasting again and repeated so on; Group 5 was treated with MTF which fasted only on Mondays and Thursdays. The treatment group fasted after 14 days of HFHF induced, with a fasting duration of 14 hours (17:00 to 07:00), for 29 days. Glucose measurement is performed after HFHF induction (pre-test) and after fasting treatment (post-test). The data was analysed using paired-samples T-test.

Results

After fasting treatment, glucose levels decreased significantly in the Group 3 (p=0.012), Group 4 (p=0.042), and Group 5 (p=0.008) compared to pre-tests. Meanwhile, Group 1 and Group 2 did not show any significant changes in glucose levels (p>0.05) (IDDF2021-ABS-0029 Figure 1. Glucose levels).

Conclusions

This result suggests a new insight into fasting in Islam, RF, DF, and MTF can be an alternative in lowering high glucose levels caused by HFHF.

**Abstract IDDF2021-ABS-0029 Figure 1**