

HbA1c Monitoring and Follow Up of Patients Attending Zayed

Military Primary Health Care Center in 2021

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Introduction

- Diabetes mellitus is a metabolic disorder that is defined by the body's inability to produce or respond to insulin, leading to elevated levels of glucose in the blood.
- This condition results in abnormalities in carbohydrate, protein, and lipid metabolism, ultimately causing chronic hyperglycemia.
- Diabetes is a global threat due to lifestyle changes that promote illness progression.
- It is estimated that by 2040, the number of individuals with diabetes mellitus worldwide will reach 642 million, which is a significant increase from the current 415 million.
- The prevalence of diabetes in the United Arab Emirates is considerably high, with recent research indicating rates ranging from 8% to 19.3%.
- Diabetes complications are responsible for most of the disease-related deaths and can affect multiple organs
- Diabetes mellitus is a significant global risk factor for developing kidney damage.
- Microalbuminuria, the presence of small amounts of albumin in urine, is a reliable prognostic indicator of early renal impairment
- Around 30% of diabetic patients develop microalbuminuria 15 years after the disease onset
- The high prevalence of diabetes in UAE and other parts of the world is associated with various factors such as obesity, sedentary lifestyle, and abnormal levels of lipids and blood pressure.

Aim

To improve the standard of management and follow-up of diabetic patients in Zayed Military Primary Health Care Center (ZMPHCC).

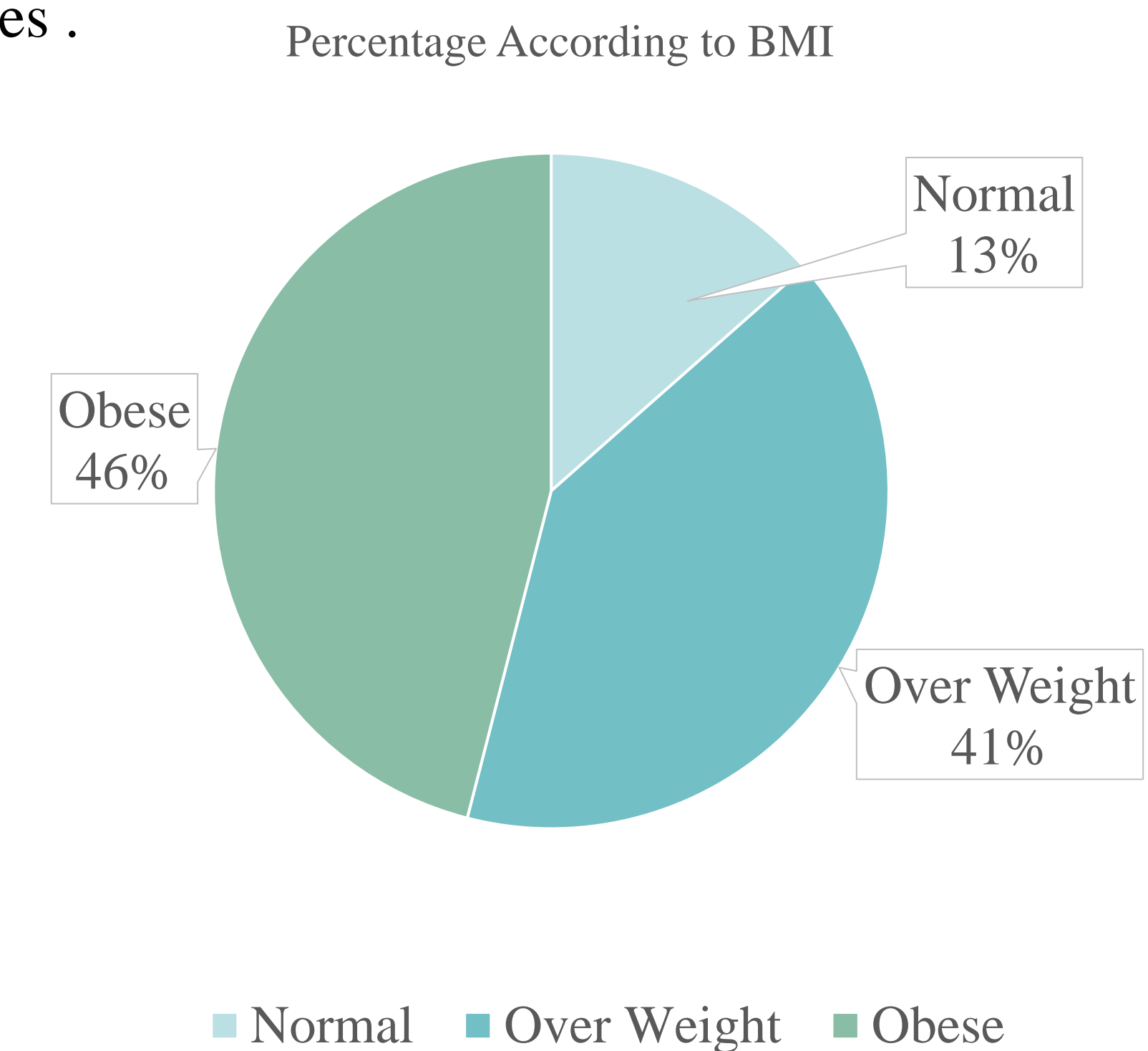
Methods

- This retrospective observational study analyzed data of diabetic patients who visited ZMPHCC from 1st January 2021 to 31st December 2021.
- Total number of patients were 203.
- Type 2 Diabetic individuals having HbA1c > 8% were included.
- Patients with HbA1c below 8% and any other type of diabetes were excluded. Data were collected from the patient's medical file and entered in MS Excel. The patient's age, gender, BMI, HbA1c, and urine albumin creatinine ratio levels were recorded.
- For data analysis, SPSS version 21 was used.

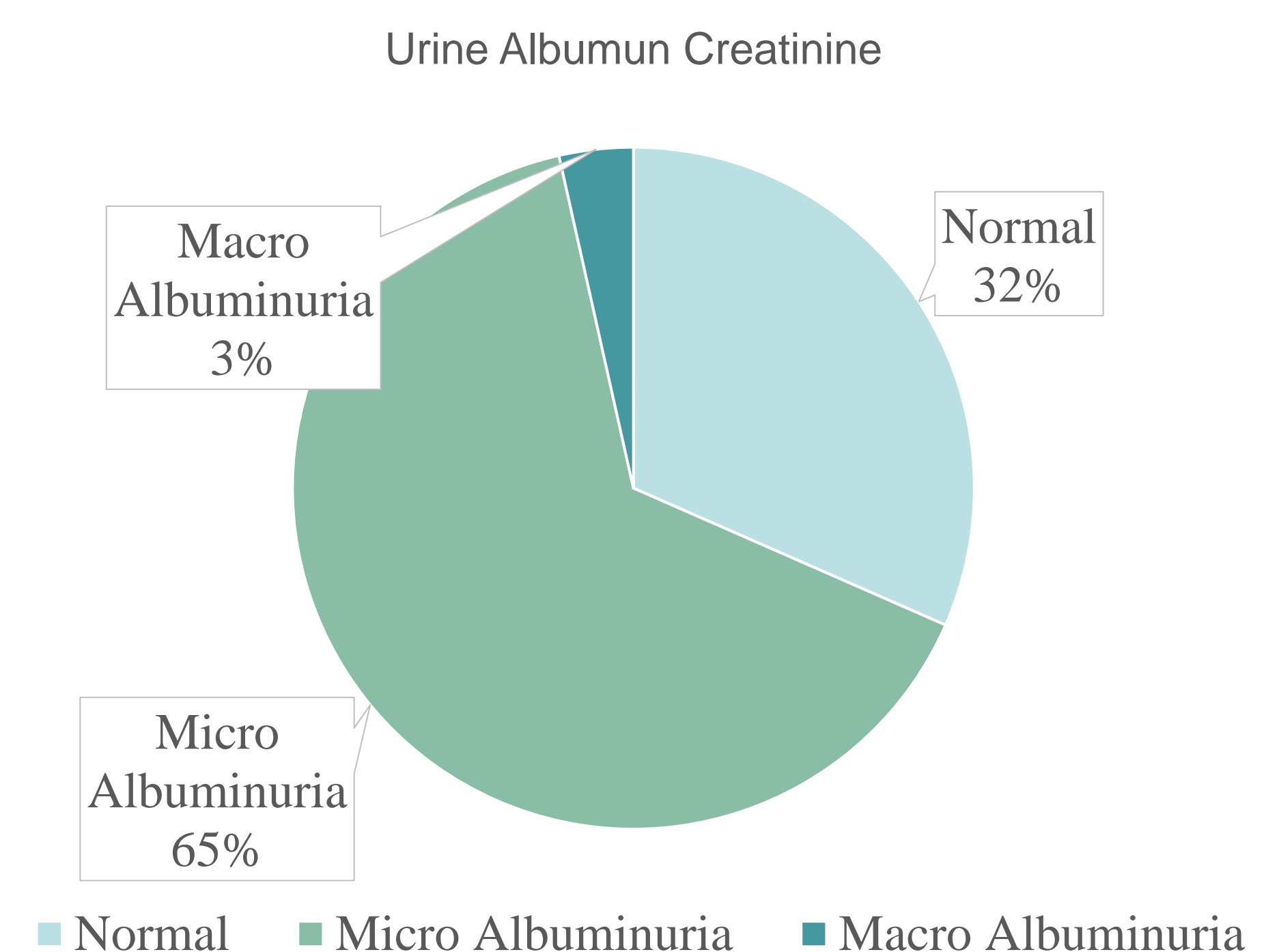
Results

Variable	Frequency	Percentage
Gender (N=203)		
Male	168	82.8
Female	35	17.2
Age Group (N=203)		
Up to 45	64	31.5
46 to 60	85	41.9
61 and above	54	26.6

- The mean HbA1c value for males is 9.89 ± 1.68 ; in females, it is 9.69 ± 1.59 .
- Among males, the maximum HbA1c was found 16.40 %; in females, it was 13.50 %.
- Our findings are consistent with prior research indicating a higher prevalence of diabetes among males .



- Maximum HbA1c of the normal weight individuals was 14.40%, in Overweight it was 16.40 % and in obese it was found 15.30 %.



- There is a significant increase in the prevalence of microalbuminuria, particularly in individuals with diabetes.
- Past research has shown that elevated levels albumin in urine could signal underlying renal issues or complications.

Conclusions

- Patients should be encouraged to maintain a healthy lifestyle. Effective management of the disease requires the implementation of proactive measures to identify and mitigate potential complications.
- Regular monitoring of urinary albumin creatinine ratio (UACR) in patients with obesity and HbA1c levels greater than 8%.
- This approach can help identify early signs of renal and cardiovascular complications, allowing for early intervention and improved patient outcomes.
- Patients with micro or macroalbuminuria should be evaluated on a regular basis to prevent further complications.

References

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