EVALUATION OF THE EFFECT OF DIABETES ON KYPHOSIS ANGLE IN POSTMENOPAUSAL OSTEOPOROSIS PATIENTS

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PLAN

- Kyphosis
- Diabetes Mellitus
- Aim
- Method
- Results
- Conclusion
- References

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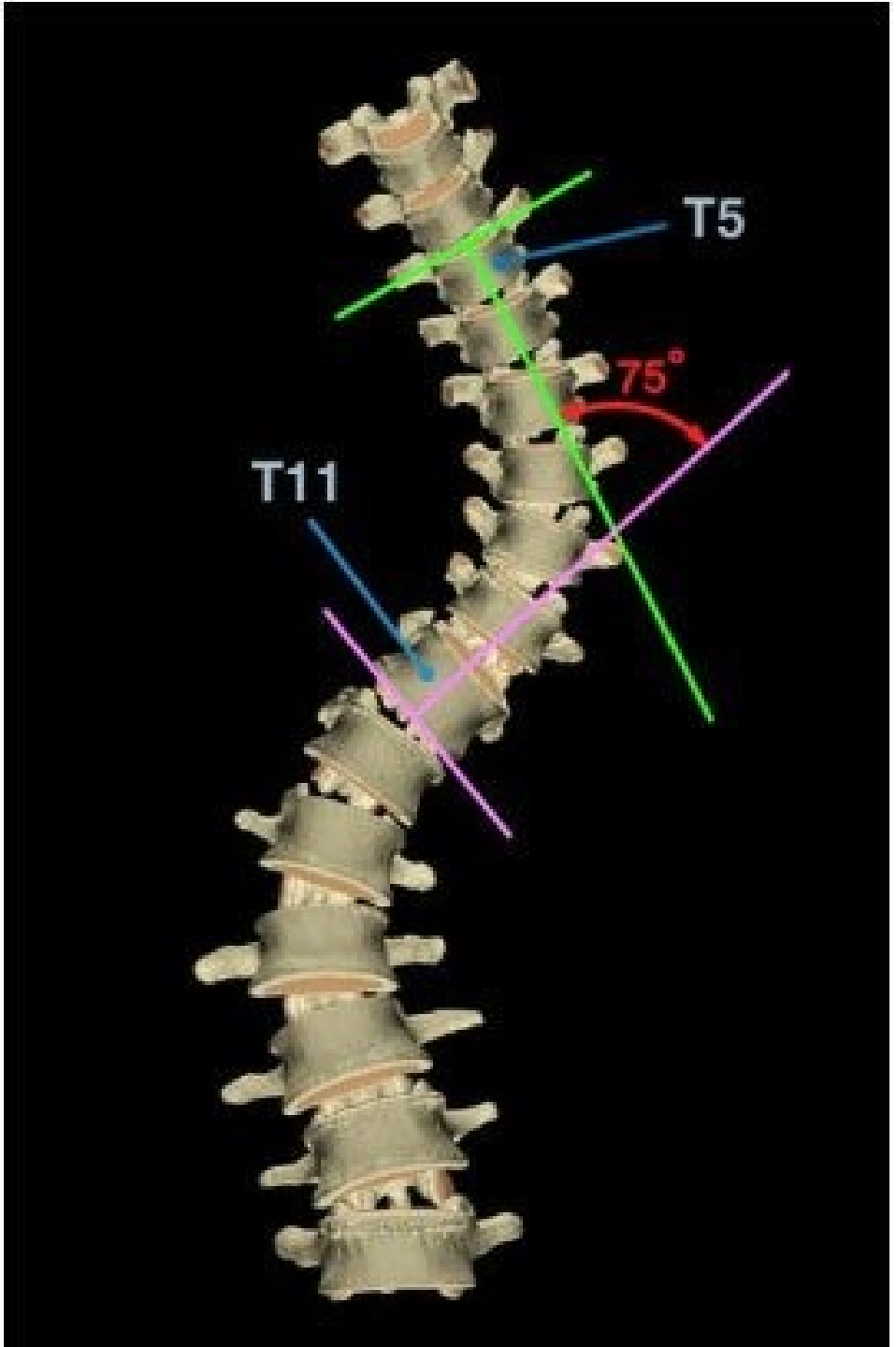
WHAT IS KYPHOSIS ?

- Kyphosis is a disease most commonly observed in the back region, affecting approximately 1% to 8.3% of the population.
- It is a condition characterized by abnormal development, posture abnormalities.
- When kyphosis is in an advanced stage, it can have serious negative effects on individuals social and occupational functions.



DIAGNOSE OF KYPHOSIS

- The degree of thoracic curvature is determined based on the Cobb angle (the angle between the upper endplate of T5 and the lower endplate of T12 as measured on a comfortably taken lateral X-ray). If this angle exceeds 40 degrees, it is referred to as kyphosis.

OSTEOPOROTIC EFFECT OF DIABETES

- In most studies involving patients with DM, although not all, a decrease in bone mineral density (BMD) has been observed. It is estimated that more than 50% of patients with Type 1 DM have bone loss, and approximately 20% have BMD values below -2.5 standard deviations (SD) .
- A recent meta-analysis has shown a significant increase in the risk of hip fractures with decreased BMD in DM .

AIM

- The relationship between Diabetes Mellitus and Osteoporosis has been demonstrated in studies.
- However, there is a lack of research specifically addressing the extent to which Diabetes Mellitus affects the kyphosis angle.
- In this regard, we anticipate that our research will contribute to the understanding of this aspect.

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METHOD

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Cobb Angle

Patients were divided into two groups: those with Diabetes Mellitus and those without.

36 sample for each group

Cobb angles were compared based on lateral thoracic radiographs. Descriptive statistics, including mean (standard deviation, SD) for continuous variables and percentages for categorical variables, will be used for group descriptions.

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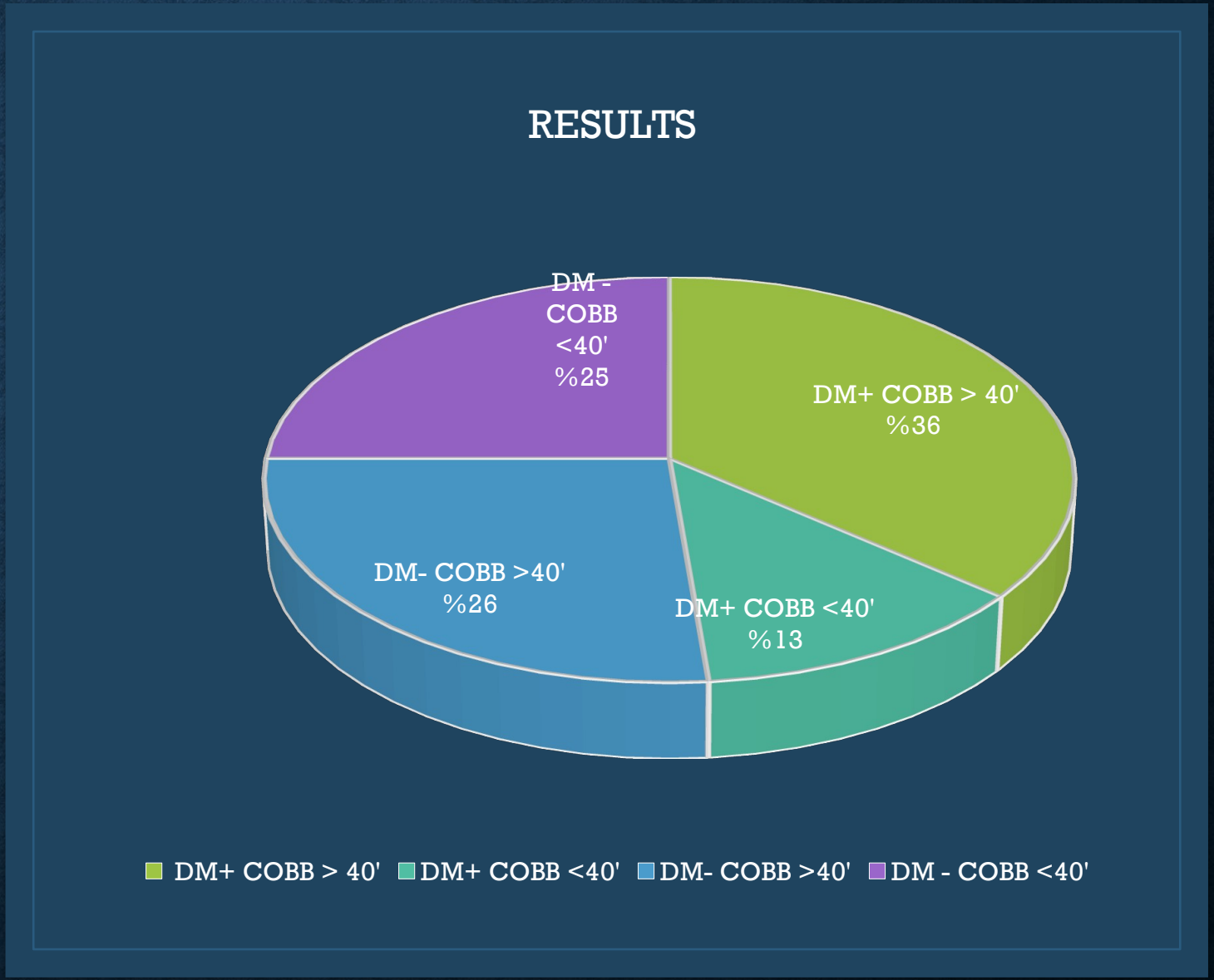
RESULTS

- Examining 72 females aged 54+, 36 had no DM, 36 had DM.(Mean Age : 68,61) There is no significant Cobb angle difference was found between DM and non-DM patients (p>0.05).



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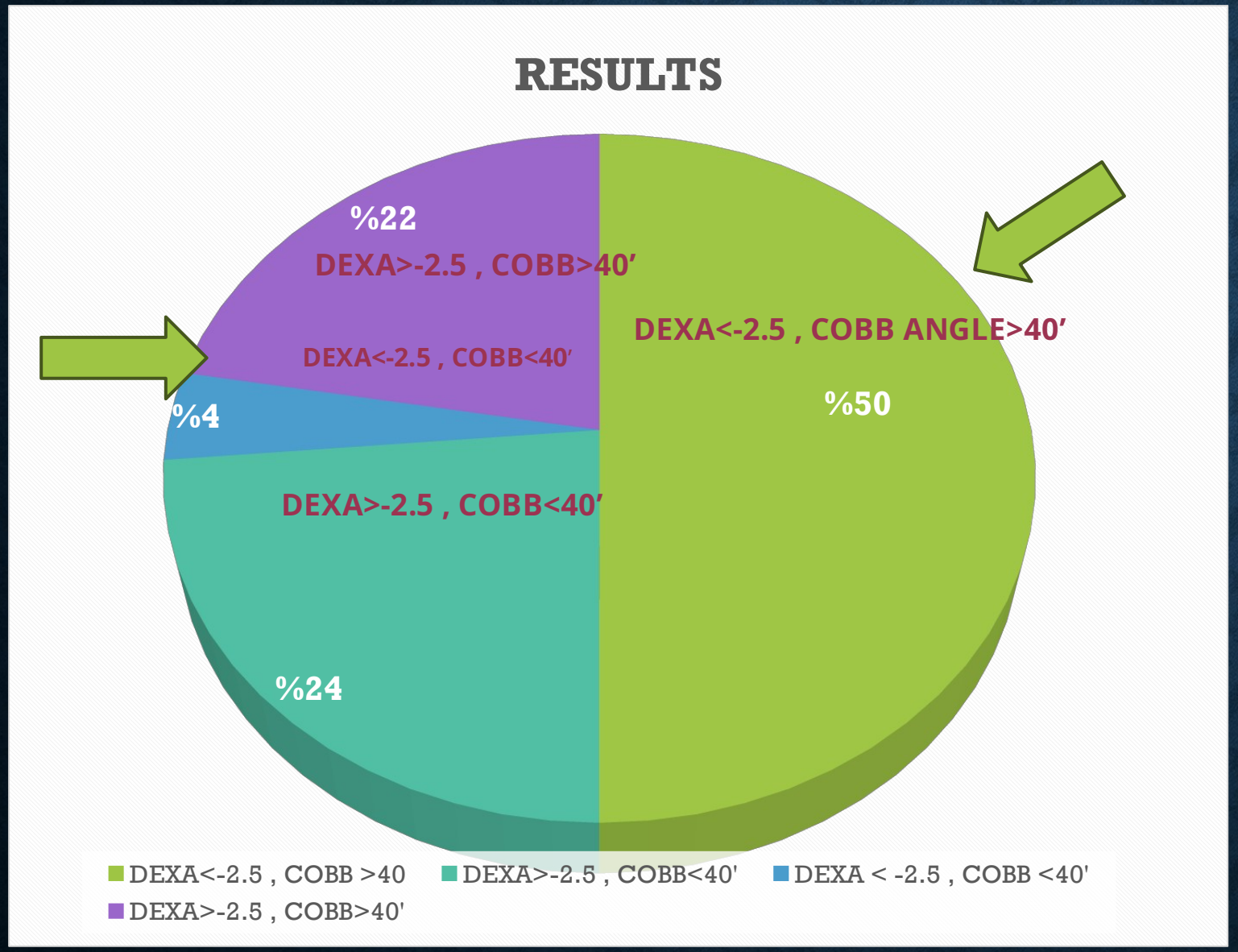

RESULTS

- A significant inverse relationship was found between DEXA value and Cobb angle ($p<0.001$, $r= -0.680$)

RESULTS

- Age correlated significantly with Cobb angle ($p<0.002$, $r=0.355$), but not with DEXA($p>0.05$).
- The average age of the patients examined in the study was 68.5 years. The youngest patient included in the study was 55 years old, while the oldest was 86 years old.
- A significant negative correlation existed between Cobb angle and patient height ($p<0.005$, $r=-0.326$).

Age	Cobb Angle Average
55-60 (n=14)	40,25’
60-65 (n=13)	48
65-70 (n=14)	56,222
70-75 (n=15)	58,5
75-80 (n=10)	58,2
80+ (n=6)	54,4

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CONCLUSION

- According to the study results, it has not been demonstrated that Diabetes mellitus directly affects the angle of kyphosis.
- In patients with kyphosis, it has been observed that there are multiple parameters, both directly and indirectly, influencing the angle of the disease.

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CONCLUSION

- **Limitations;**
- We believe that increasing the number of patients in the study groups and narrowing down the age range will be beneficial in demonstrating the effect of diabetes mellitus on kyphosis in future studies.

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