KARNATAKA RADIOLOGY EDUCATION PROGRAM

CLINICAL RESEARCH – BRIDGING IMAGING & INNOVATION

SESSION – 10 – MANUSCRIPT SUBMISSION CHECKLIST

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MANUSCRIPT SUBMISSION CHECKLIST

DATA ANALYSIS

- ✓ STATISTICAL METHODS USED

- ✓ SOFTWARE AND TOOLS

- ✓ DATA INTERPRETATION

The statistical analysis was done using SPSS (Statistical Package for Social Sciences) Version 21.0 Statistical Analysis Software. The values were represented in number (%) and mean ± SD. Mean, SD, chi-square test, Student's t-test, analysis of variance (ANOVA), and bivariate correlation were the statistical tools used for the analysis of data. A p-value <0.05 was considered significant.

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RESULTS

✓ PRESENTATION OF FINDINGS (TABLES, FIGURES)

✓ STATISTICAL SIGNIFICANCE

✓ KEY RESULTS HIGHLIGHTED

Table 1
Clinicodemographic profile of patients

Variables		Groups	No of cases	Percentage
Age (y) 36.89 ± 4.70 (30–45) Mean age ± SD (range)		30–35	67	47.9
		36–40	38	27.1
		41–45	35	25.0
Gender		Male	73	52.1
		Female	67	47.9
Imaging findings	Normal		41	29.3
	Abnormal	Degenerative	83	59.3
		Inflammatory	10	7.1
		Infective	6	4.3
Duration (mo) 14.31 ± 8.24 (range: 3–36)		≤ 6 mo	38	27.1
		7–12 mo	48	34.3
		13–24 mo	46	32.9
		≥ 25 mo	8	5.7
BMD		Normal	123	87.9
		Low (Z-score < 2 SD)	17	12.1

Abbreviations: BMD, bone mineral density; SD, standard deviation.

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DISCUSSION

- ✓ **INTERPRETATION OF RESULTS:**
  - ✓ EXPLAIN THE SIGNIFICANCE OF THE FINDINGS IN THE CONTEXT OF CURRENT RADIOLOGICAL KNOWLEDGE
  - ✓ DISCUSS HOW THE RESULTS SUPPORT OR REFUTE THE INITIAL HYPOTHESIS
  - ✓ EXAMPLE: "OUR STUDY FOUND THAT THE USE OF DUAL-ENERGY CT SIGNIFICANTLY IMPROVED THE DETECTION OF SMALL PULMONARY EMBOLISMS, SUPPORTING OUR HYPOTHESIS THAT THIS TECHNIQUE PROVIDES SUPERIOR IMAGING QUALITY COMPARED TO SINGLE-ENERGY CT."

- ✓ **COMPARISON WITH PREVIOUS STUDIES:**
  - ✓ COMPARE THE STUDY RESULTS WITH FINDINGS FROM OTHER RELEVANT RESEARCH
  - ✓ HIGHLIGHT SIMILARITIES AND DIFFERENCES, AND POSSIBLE REASONS FOR ANY DISCREPANCIES
  - ✓ EXAMPLE: "PREVIOUS STUDIES BY SMITH ET AL. (2022) AND JOHNSON ET AL. (2021) ALSO DEMONSTRATED IMPROVED DIAGNOSTIC ACCURACY WITH DUAL-ENERGY CT, CONSISTENT WITH OUR FINDINGS. HOWEVER, UNLIKE JOHNSON ET AL., WE OBSERVED A HIGHER DETECTION RATE IN PATIENTS WITH UNDERLYING CHRONIC LUNG DISEASE."

DISCUSSION

✓ **CLINICAL IMPLICATIONS**:
   - ✓ DISCUSS THE POTENTIAL IMPACT OF THE FINDINGS ON CLINICAL PRACTICE
   - ✓ SUGGEST HOW THE RESEARCH MIGHT INFLUENCE PATIENT CARE, DIAGNOSTIC PROTOCOLS, OR TREATMENT GUIDELINES
   - ✓ EXAMPLE: "THE RESULTS OF OUR STUDY SUGGEST THAT INCORPORATING DUAL-ENERGY CT INTO ROUTINE CLINICAL PRACTICE COULD ENHANCE THE EARLY DETECTION OF PULMONARY EMBOLISMS, PARTICULARLY IN HIGH-RISK PATIENT POPULATIONS, LEADING TO MORE TIMELY AND EFFECTIVE TREATMENT INTERVENTIONS."

✓ **LIMITATIONS OF THE STUDY**:
   - ✓ ACKNOWLEDGE ANY LIMITATIONS OR WEAKNESSES IN THE STUDY DESIGN, METHODOLOGY, OR DATA ANALYSIS
   - ✓ EXPLAIN HOW THESE LIMITATIONS MIGHT AFFECT THE INTERPRETATION OF THE RESULTS
   - ✓ EXAMPLE: "ONE LIMITATION OF OUR STUDY IS THE SMALL SAMPLE SIZE, WHICH MAY REDUCE THE GENERALIZABILITY OF THE FINDINGS. ADDITIONALLY, THE RETROSPECTIVE DESIGN MAY INTRODUCE SELECTION BIAS. FUTURE PROSPECTIVE STUDIES WITH LARGER COHORTS ARE NEEDED TO VALIDATE OUR RESULTS."

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CONCLUSION

✓ SUMMARY OF FINDINGS

✓ POTENTIAL IMPACT ON CLINICAL PRACTICE

✓ FUTURE RESEARCH DIRECTIONS

Conclusion

MR-diffusion kurtosis imaging can evaluate microstructural abnormalities in the entire brain in patients with unipolar and bipolar depression. It has given additional insights into the brain areas, which might play a role in establishing the etiopathogenesis of the depression. The study has been able to find specific imaging biomarkers that can differentiate BD from UD and vice-versa, which was the primary aim of this study. However, since this is numerical data, it is valid only for group analysis. As of now, extrapolation to individual patients is not pragmatic. Hybrid functional (DKI and task-based/paradigm based) imaging techniques and machine learning algorithms may help in holistic evaluation of the neural mechanisms underlying BD in future.

MANUSCRIPT SUBMISSION CHECKLIST

FIGURES AND TABLES

- ✓ HIGH-QUALITY IMAGES AND TABLES
- ✓ CLEAR CAPTIONS AND LEGENDS
- ✓ PROPER LABELING

REFERENCES

- ✓ LIST OF CITED REFERENCES IN AMA STYLE
- ✓ ENSURE ALL REFERENCES ARE UP-TO-DATE AND RELEVANT

ACKNOWLEDGMENTS

- ✓ FUNDING SOURCES
- ✓ CONTRIBUTIONS OF INDIVIDUALS OR INSTITUTIONS

CONFLICT OF INTEREST

- ✓ DISCLOSURE OF ANY POTENTIAL CONFLICTS OF INTEREST

SUPPLEMENTARY MATERIAL

- ✓ ADDITIONAL TABLES, FIGURES, OR DATA
- ✓ MULTIMEDIA FILES (E.G., VIDEOS, AUDIO)