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# Is concurrent root repair with HTO better than isolated root repair for medial meniscal root tears in moderate varus?


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# Faculty Disclosure Information

- *The authors have no relevant financial or non-financial interests to disclose.*
- *The authors have no conflicts of interest to declare*

# Surgical Options for MMRT in varus knees

- Isolated Root repair
- Root repair with HTO
- Only HTO

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# Aim of the study!

**<u>To compare the functional and radiological outcomes of</u>**

**Isolated root repair (iMMRR)**

**VERSUS**

**Concurrent root repair and HTO (MMRR + OW-HTO)**

**For medial meniscus root tears in moderate varus knees.**

# Methodology & Selection Criteria

Retrospecctive cohort, with minimum FU of 2 years, Study Period: 2017-2023

*Inclusion criteria:*

*Laprade type 2 tears and repairable type 4 tears.*

*5°-10° varus*

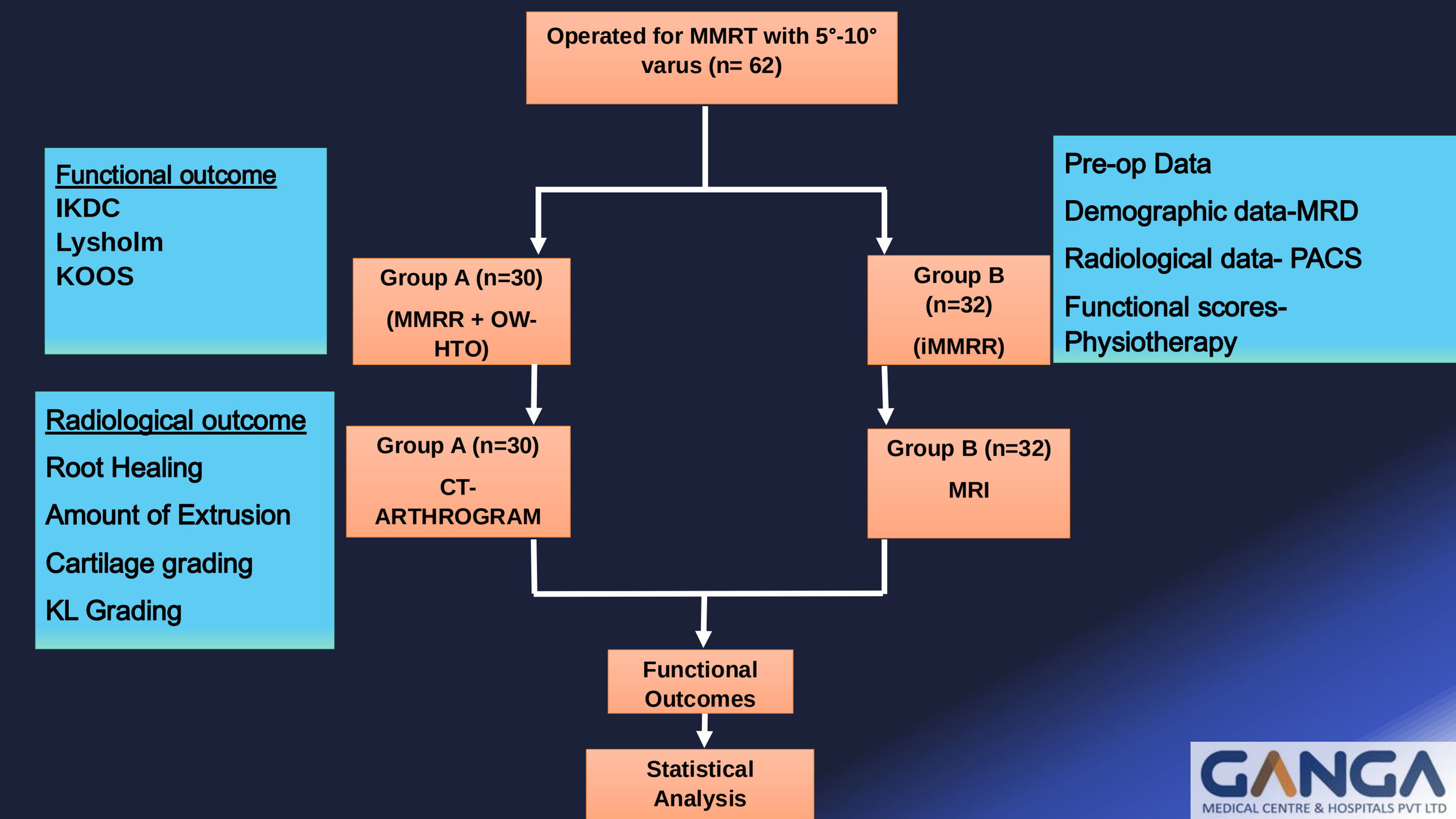
*<grade 3 OA*

*Exclusion criteria:*

*Morbidly obese patients (BMI >35).*

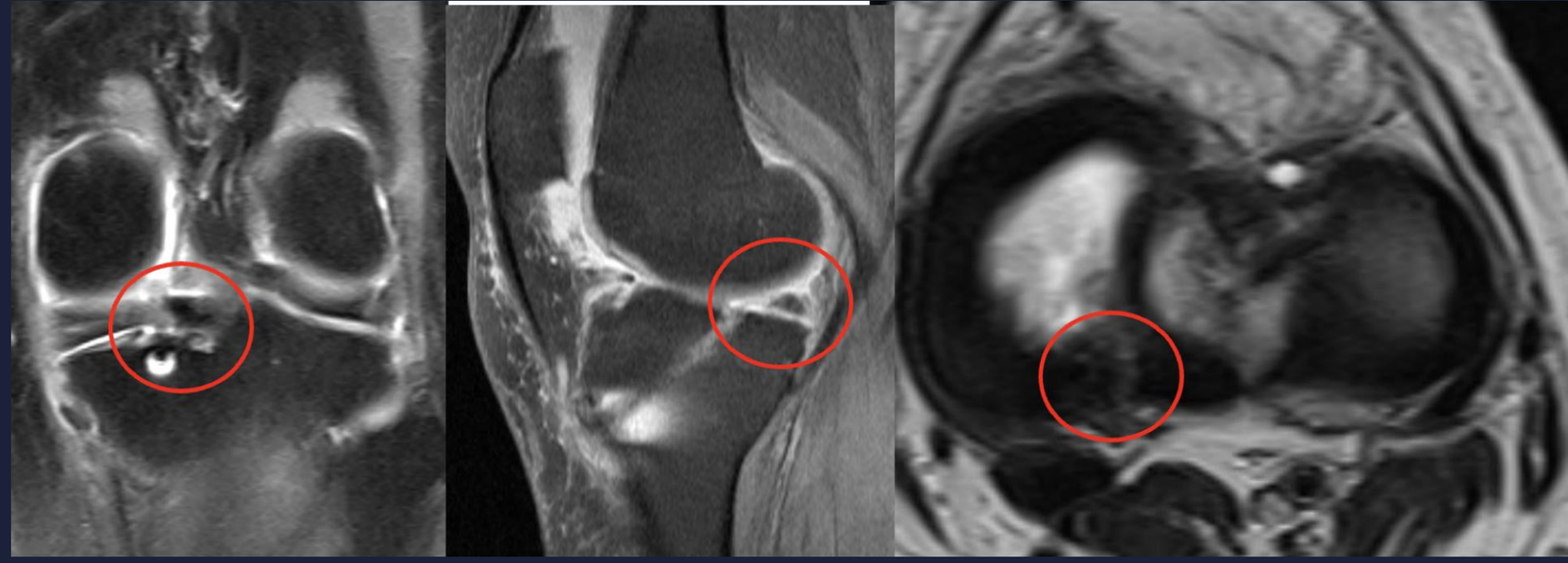
*> Grade 2  OA in lateral compartment*

*Associated ligament injuries*


Operated for MMRT with 5°-10° varus (n= 62)
Group A (n=30)
(MMRR + OW-HTO)
Group B (n=32)
(iMMRR)
Group A (n=30)
CT-ARTHROGRAM
Group B (n=32)
MRI
Functional Outcomes
Statistical Analysis
Functional outcome
IKDC
Lysholm
KOOS
Radiological outcome
Root Healing
Amount of Extrusion
Cartilage grading
KL Grading
Pre-op Data
Demographic data-MRD
Radiological data- PACS
Functional scores-Physiotherapy

Group A-MRI

(Root repair)

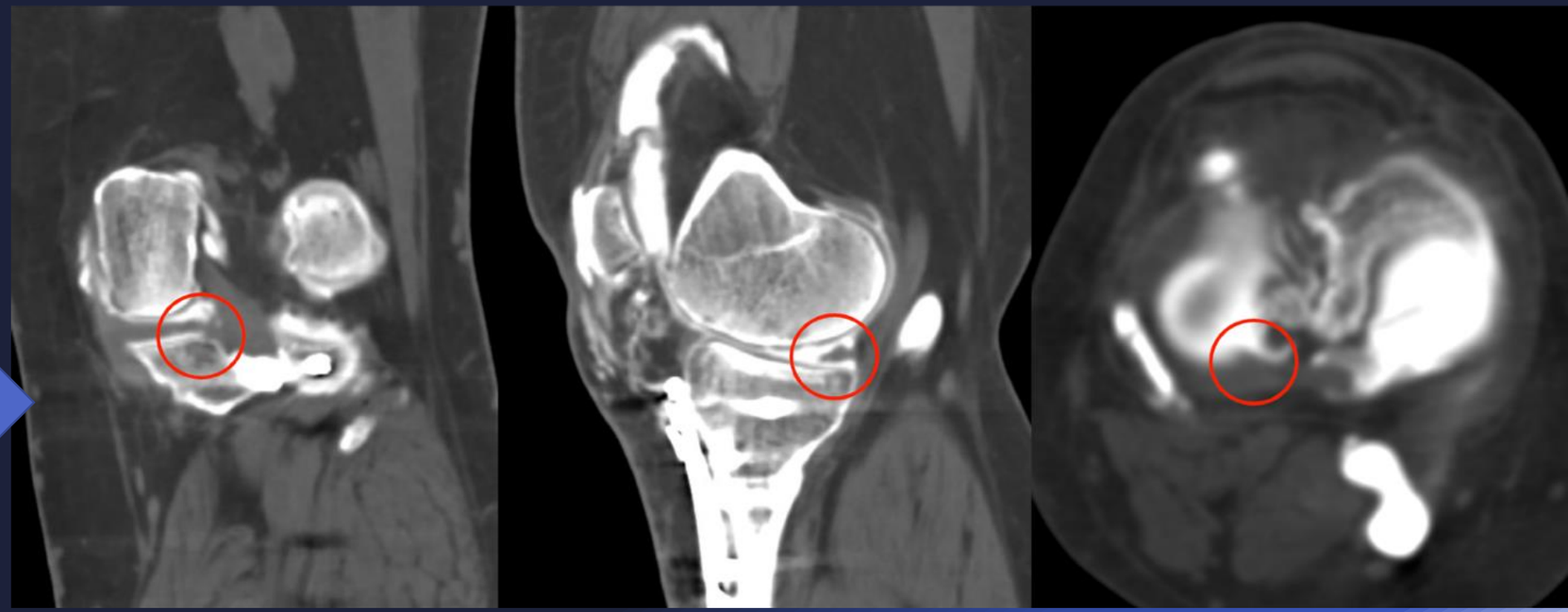


Healed meniscal root

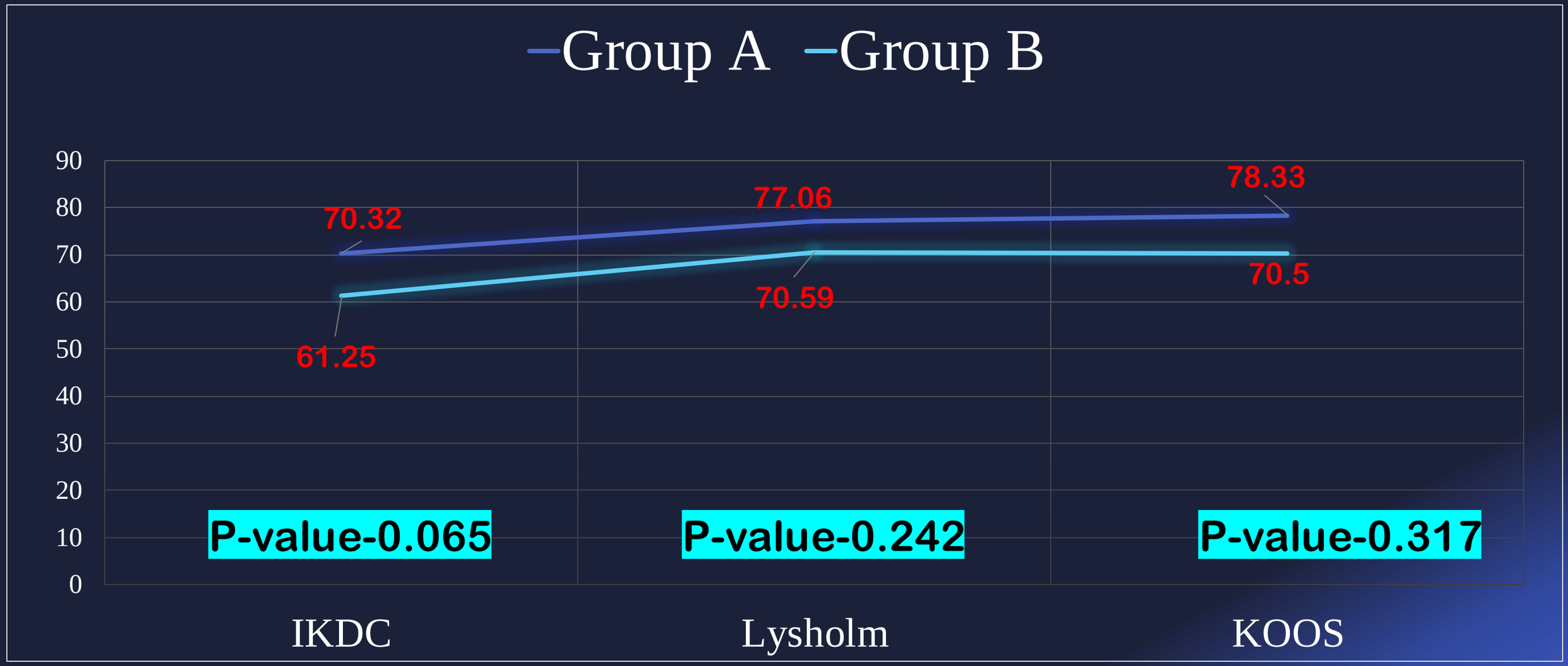
Group B

CT arthrogram

(Root repair + HTO)



# Follow up Functional Outcome (Group A vs Group B)




Better functional scores in Root repair + HTO

Not statistically significant

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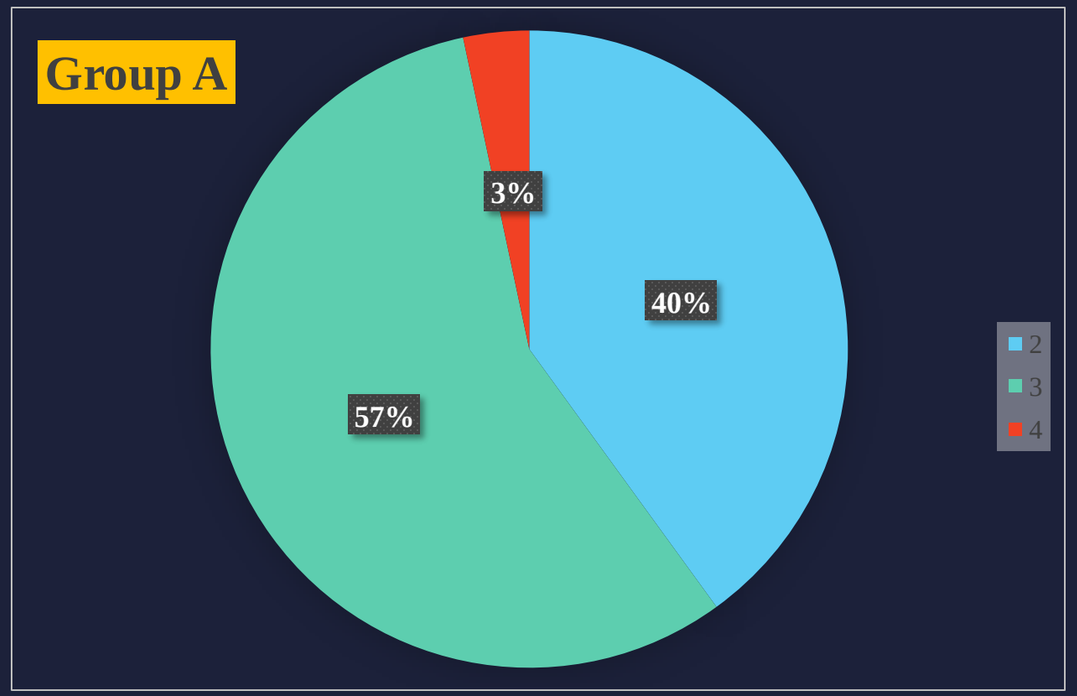
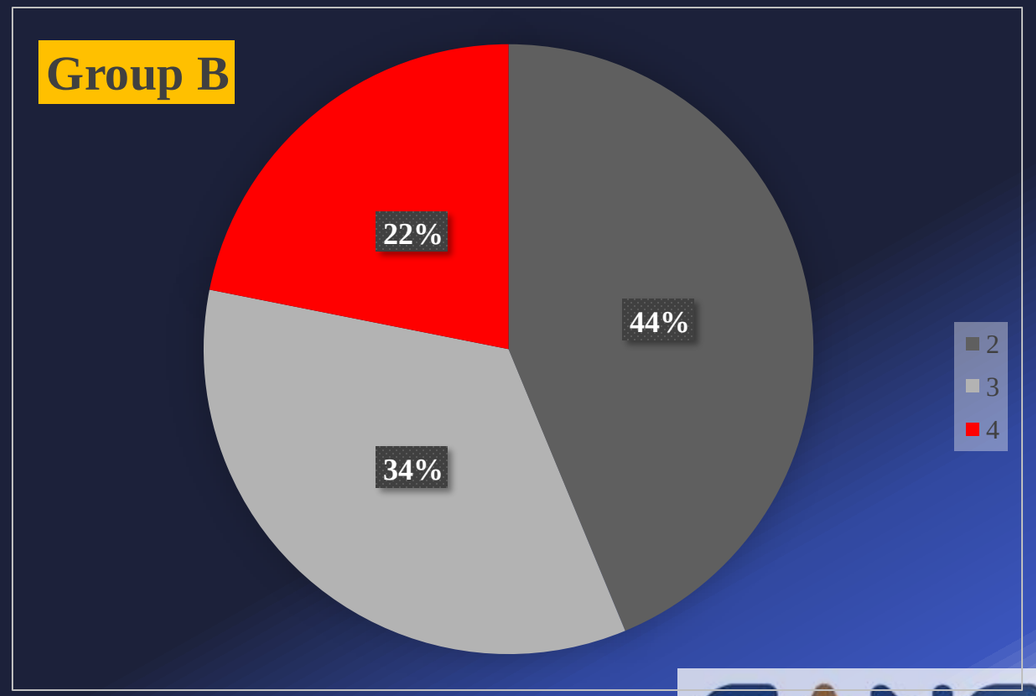
# Progression of OA

| *Grade IV OA* | | | |
|---|---|---|---|
| *Group A* | | *Group B* | |
| *Pre-Op* | *Post-Op* | *Pre-Op* | *Post-Op* |
| *0* | *1* | *0* | *7* |

- *Rate of progression of arthritis is delayed by Varus correction*

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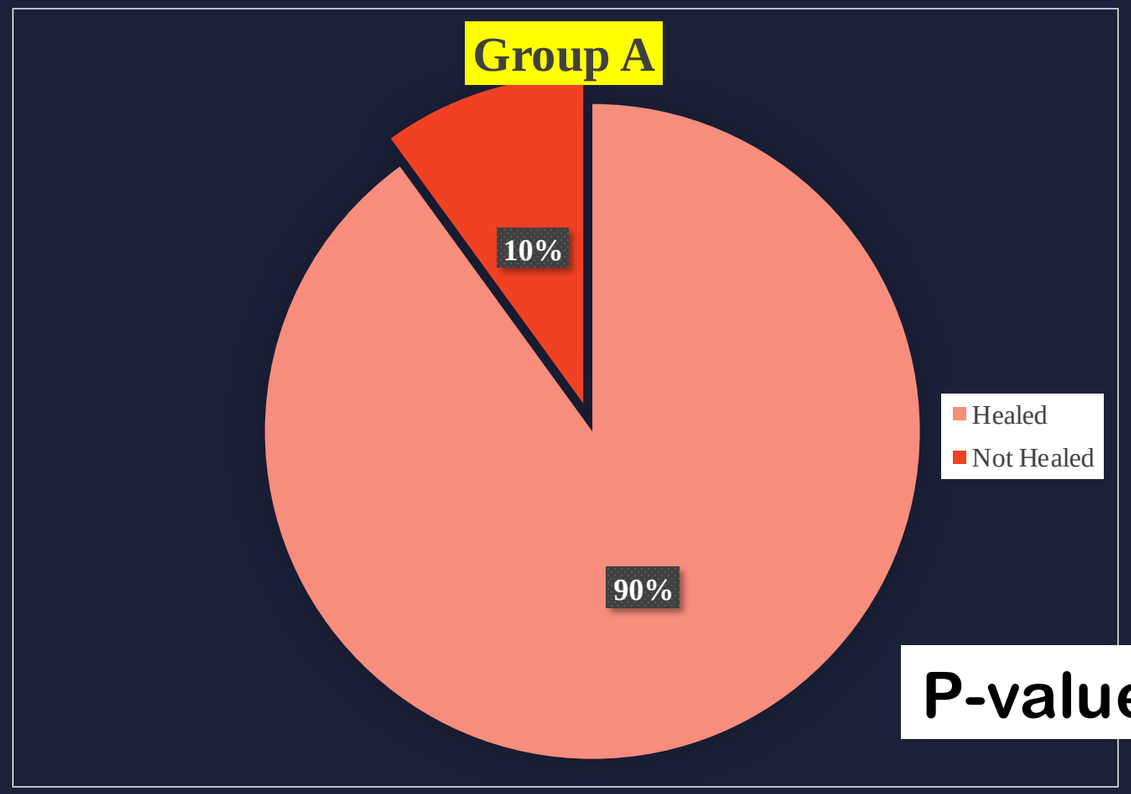
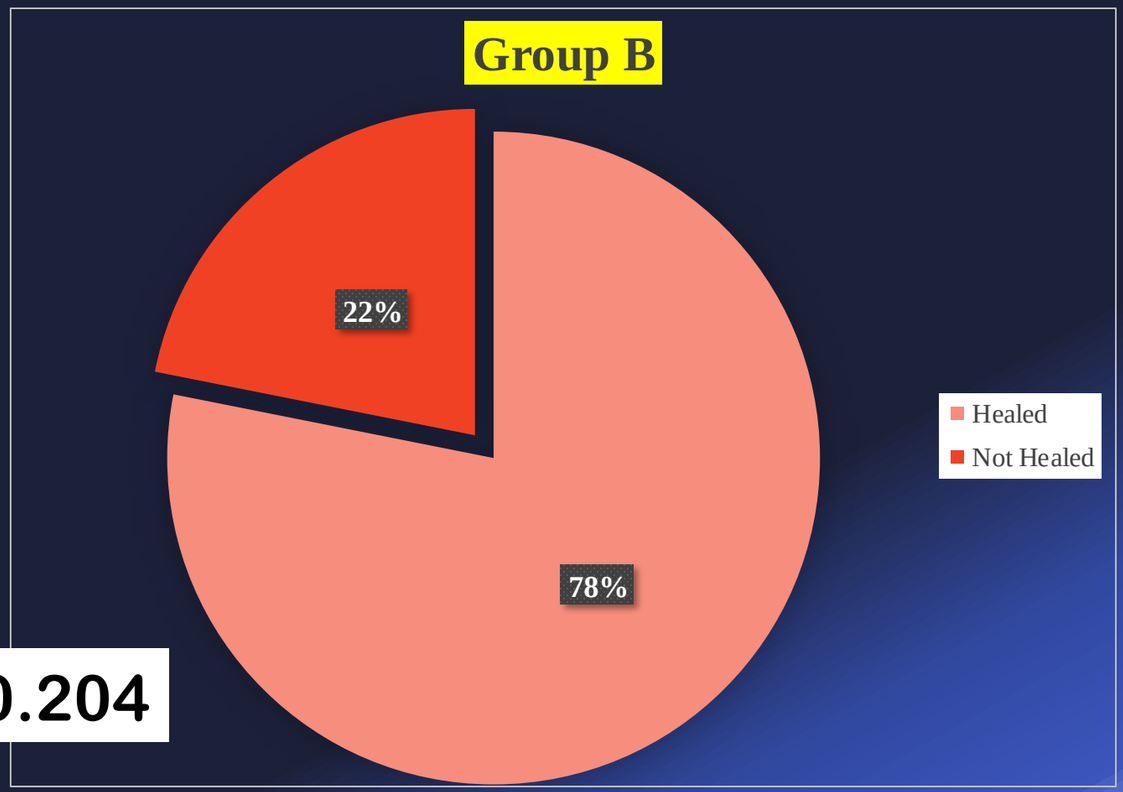
# Root Healing

| | Group A | Group B |
|---|---|---|
| Healed | 27 | 25 |
| Not Healed | 3 | 7 |




**P-value-0.204**

Not statistically significant

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# Uniqueness of the study

*First study:*

- To compare Isolated root repair with concurrent root repair & HTO in moderate varus.
- To use CT-arthrogram as a radiological tool to assess root healing in HTO.

# Conclusion

- Isolated root repair is functionally similar to root repair + HTO in moderate varus knees at midterm follow up.
- Radiologically HTO with root repair showed slower progression to arthritis as compared to root repair alone
- Longer follow up may be required to analyse the role of HTO in root tears with moderate varus

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